July 1976 Number 383-Part I

Solar-Geophysical Data prompt reports

Data for June 1976–May 1976

Explanation of Data Reports Issued as Number 378 (Supplement) February 1976

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Solar - Geophysical Data

NO. 383 JULY 1976

Part I (Prompt Reports)

DATA FOR
JUNE 1976
MAY 1976

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80302.

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SOLAR - GEOPHYSICAL DATA

No. 383

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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Note: A = Part I, B = Part II.

374A 28 listed under 1975 Aug shows that data for August 1975 were contained in *Solar-Geophysical Data* Number 374 - Part I beginning on page 28.

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ALERT PERIODS

INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

JUNE 1976

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS)

BOULDER 11/0500Z MAGSTORM BEGINS 11/0000Z WEAK MAGSTORM IN PROGRESS 11/0500Z.

SUMMARY OF THE GEOALERT WWA MESSAGES

Message serial number	Date of issue	Date of observation	Wolf number	10 cm solar flux	A index	Active Regions: Location Lat-Long	Active Regions: No. of Flares Total	M	X	Outstanding events	Forecasts: Date	Forecasts: Location Lat-Long	Desc*	Alert Situations
153	01	31	00	66	09	-	-	-	-		01	SPOTNIL	-	SOLQUIET MAGALERT MINOR 01
154	02	01	00	67	06	-	-	-	-		02	SPOTNIL	-	SOLQUIET MAGNIL
155	03	02	00	66	06	-	-	-	-		03	SPOTNIL	-	SOLQUIET MAGQUIET
156	04	03	00	66	07	-	-	-	-		04	SPOTNIL	-	SOLQUIET MAGQUIET
157	05	04	00	66	20	-	-	-	-		05	SPOTNIL	-	SOLQUIET MAGQUIET
158	06	05	00	67	18	-	-	-	-		06	SPOTNIL	-	SOLQUIET MAGQUIET
159	07	06	11	67	09	S04E05	0	0	0		07	S04E05	Q	SOLQUIET MAGQUIET
160	08	07	00	67	11	-	-	-	-		08	SPOTNIL	-	SOLQUIET MAGQUIET
161	09	08	20	69	10	S25W34	0	0	0		09	S25W34	Q	SOLQUIET MAGQUIET
162	10	09	13	68	06	S25W47	0	0	0		10	S25W47	Q	SOLQUIET MAGQUIET
163	11	10	13	69	05	S15W59	0	0	0		11	S25W59	Q	SOLQUIET MAGALERT 11/13 GRADUAL COMMENCEMENT 11/0000Z
164	12	11	12	69	25	S44E34	0	0	0		12	S44W34	Q	SOLQUIET MAGALERT 12/12
165	13	12	13	70	09	S45E22	0	0	0		13	S45E22	Q	SOLQUIET MAGNIL
166	14	13	12	70	06	S46E09	0	0	0		14	S46E09	Q	SOLQUIET MAGQUIET
167	15	14	27	71	05	S46W01 N03E69	0 0	0 0	0 0		15	S45W01 N03E69	Q Q	SOLQUIET MAGQUIET
168	16	15	12	72	03	N04E53	1	0	0		16	N04E53	Q	SOLQUIET MAGALERT 16/18
169	17	16	20	75	08	N03E41	3	0	0		17	N03E41	E	SOLQUIET MAGALERT 17/19
170	18	17	25	75	14	N03E28	3	0	0		18	N03E28	E	SOLQUIET MAGALERT 18/19
171	19	18	32	75	20	N03E13	0	0	0		19	N03E13	Q	SOLQUIET MAGALERT 19
172	20	19	33	74	08	N03E02	0	0	0		20	N03E02	Q	SOLQUIET MAGNIL
173	21	20	52	74	06	N03W12 N01W29	0 0	0 0	0 0		21	N03W12 N01W29	Q Q	SOLQUIET MAGQUIET
174	22	21	38	75	04	N03W25 N01W41	0 0	0 0	0 0		22	N03W25 N01W41	Q Q	SOLQUIET MAGQUIET
175	23	22	44	76	03	N04W42 N01W56 S26E59	0 0 0	0 0 0	0 0 0		23	N04W42 N01W56 S26E59	Q Q Q	SOLQUIET MAGQUIET
176	24	23	42	74	04	N03W54 N01W70 S27E46	0 0 0	0 0 0	0 0 0		24	N03W54 N01W70 S27E46	Q Q Q	SOLQUIET MAGALERT 24/26
177	25	24	36	73	11	N04W68 S01W36 S26E31	0 0 0	0 0 0	0 0 0	SUDDEN COMMENCE-MENT OBSERVED AT BOULDER 24/1632Z	25	N04W68 S01W36 S26E31	Q Q Q	SOLQUIET MAGALERT 25/26
178	26	25	26	72	14	S01W50 S27E19	0 0	0 0	0 0		26	S01W50 S27E19	Q Q	SOLQUIET MAGALERT 26/XX
179	27	26	26	72	05	S01W64 S27E07	0 0	0 0	0 0		27	S01W64 S27E07	Q Q	SOLQUIET MAGNIL
180	28	27	11	70	08	S27W07	0	0	0		28	S27W07	Q	SOLQUIET MAGQUIET
181	29	28	13	69	06	S27W19	0	0	0		29	S27W19	Q	SOLQUIET MAGQUIET
182	30	29	12	69	09	S27W30	0	0	0		30	S27W30	Q	SOLQUIET MAGQUIET
183	01	30	12	68	22	S27W40	0	0	0		01	S27W40	Q	SOLQUIET MAGALERT MINOR 01/02

* Q=Quiet E=Eruptive A=Active P=Proton C=Caution D=Doubtful O.G.=Other Groups MF=Major Flare

Note: Beginning with June 22, 1976 Presto Messages for Magnetic Storms are issued only for Strong Magnetic Storms (A ≥ 50).

RELATIVE SUNSPOT NUMBERS

ZURICH, R_z

	1975 FINAL						1976 PROVISIONAL					
DAY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	23	37	14	15	0	7	0	0	0	26	35	0
2	18	36	16	8	0	23	0	0	0	25	26	0
3	22	46	19	9	7	20	0	0	0	22	25	0
4	16	78	29	10	18	23	0	0	0	13	8	0
5	23	93	25	8	22	21	0	0	0	12	22	0
6	33	104	24	10	27	18	0	0	10	9	10	0
7	23	102	24	9	30	20	0	0	12	0	10	0
8	19	89	23	16	33	18	0	0	7	0	9	11
9	16	83	17	15	30	8	0	0	10	8	8	10
10	23	80	10	8	26	0	8	0	12	10	10	7
11	29	72	10	8	30	0	0	0	13	15	16	7
12	33	45	16	10	24	0	20	0	13	17	17	8
13	43	52	19	21	22	0	26	13	13	17	23	8
14	46	34	17	26	29	7	36	16	22	19	30	15
15	43	31	8	21	28	7	20	18	16	19	17	18
16	39	26	14	18	28	7	22	11	11	19	12	12
17	25	19	14	16	30	9	24	8	30	24	18	18
18	32	16	18	16	33	8	20	15	45	27	8	24
19	36	8	13	15	36	7	18	10	51	27	20	23
20	28	22	30	10	35	0	16	12	51	30	20	17
21	30	23	27	7	31	0	11	8	48	39	14	30
22	27	7	23	0	23	0	10	7	36	20	7	31
23	19	14	0	0	12	0	10	0	28	17	15	23
24	30	8	0	7	11	18	0	7	25	16	8	26
25	33	11	0	0	9	14	0	0	22	17	0	19
26	30	16	0	0	7	8	0	0	42	28	7	19
27	29	18	0	0	0	0	7	7	46	23	0	9
28	26	10	0	0	0	0	0	0	50	21	0	16
29	20	10	0	0	0	0	14	0	42	26	0	11
30	27	21	7	0	0	0	8		32	38	0	10
31	34	21		0		0	0		27		0	
MEAN	28.2	39.7	13.9	9.1	19.4	7.8	8.5	4.6	23.0	19.5	12.7	12.4

1975 yearly mean = 15.5

DAILY SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

	1975						1976					
DAY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
1	78.7	91.6	87.0	76.4	70.4	72.1	72.1	68.6	67.7	79.6	77.6	68.4
2	76.8	95.4	87.9	78.1	71.4	74.8	71.2	68.6	68.1	76.8	74.2	67.9
3	77.1*	97.0*	87.8	78.4	73.0	74.3	71.3	68.4	67.4	76.1	71.9	68.1
4	76.8	104.6	92.8	76.3	75.4	74.1	71.8	68.4	67.4	74.7	71.5	68.4
5	76.8	107.9	94.4	76.1	78.9	77.4	71.9	67.6	67.6	73.0	71.1	68.7
6	76.1	120.0*	94.0	75.1	80.1	75.8	71.7	68.1	67.5	71.3	69.9	69.3
7	74.1	123.2	91.1	74.3	80.5	73.7	71.6	69.3	67.9	70.3	70.3	69.3
8	74.0	123.7	88.5	74.0	80.9	76.0	70.9	68.4	67.9	71.9	70.2	70.7
9	73.3	115.9	84.3	75.4	78.8	73.3	69.4	68.3	68.2	74.1	70.6	70.1
10	73.0	116.5	82.5	74.3	78.9	73.3	70.5	68.5	68.4	75.3	71.7	71.0
11	77.6	107.3	81.1	73.3	78.6	74.3	72.1	68.4	68.8	77.1	72.5	71.4
12	82.7	104.5*	79.2*	74.8	79.9	73.4	76.9	67.8	68.9	78.1	72.6	71.7
13	88.5*	98.0	75.2	79.0	79.2	72.8	80.0	69.7	70.9	79.6	73.6	72.0
14	89.0	90.9*	74.2	80.0	82.7	71.8	82.1*	69.9	70.1	79.5	74.2	73.7
15	85.6	86.0	74.1	80.3	83.7	71.8	83.4	69.6	69.1	79.2	76.9	74.3
16	83.6	82.8	74.3	78.5	87.6	70.5	78.1	69.7	72.5	80.6	79.2	77.1
17	81.2	79.0	74.8	78.9	88.9	70.5	76.6	69.9	74.4*	80.5	76.5	77.1
18	82.8	76.4	76.2	79.2	90.8*	69.6	76.7	70.1	79.0	80.5	75.6*	77.9
19	81.9	76.7	76.2	78.0	93.0*	69.1	75.2	70.1	81.6*	79.8	73.8	76.9
20	83.3	77.2	76.5	77.1	90.9	69.7	74.6	70.0	85.0	80.0	73.0	76.9
21	83.1	80.0	76.7	75.7	86.6	69.0	72.1	68.8	91.2	78.0	74.0	77.7
22	82.7	78.5	75.3	74.2	81.5	68.9	70.9	68.9	83.0	76.2*	72.5	78.9
23	82.0	76.8	76.1	74.3	77.2	69.6	70.2	69.2	86.9	75.7	71.9	76.5
24	79.3	77.0	76.8	72.7*	74.7	71.4	68.5	69.6	82.2*	76.8	70.8	75.2
25	79.8	80.6	76.7	72.1	73.7	71.0	68.2	68.4	85.1	75.7	69.8	74.9
26	80.0	81.3	76.7	71.9	71.9	71.8	69.2	68.5	84.1*	75.7	69.5	74.3
27	78.5	83.6	75.7	72.1	70.7	72.5	67.2	68.5	85.5	74.6	69.6	72.8
28	76.5	83.3	76.1	71.7	70.4	71.5	67.1	67.9	87.1*	73.4	69.0	71.8
29	75.5	84.7	75.9	70.8	70.9	72.5	67.4	67.4	84.0	79.6	68.0	71.3
30	78.9	86.2	75.8	70.2	70.6	71.9	68.9		82.4	79.5*	68.1	70.3
31	81.9*	86.7		69.9		72.1	69.1		82.7		68.7	
MEAN	79.7	92.7	80.4	75.3	79.1	72.3	72.4	68.8	75.8	76.7	72.2	72.8

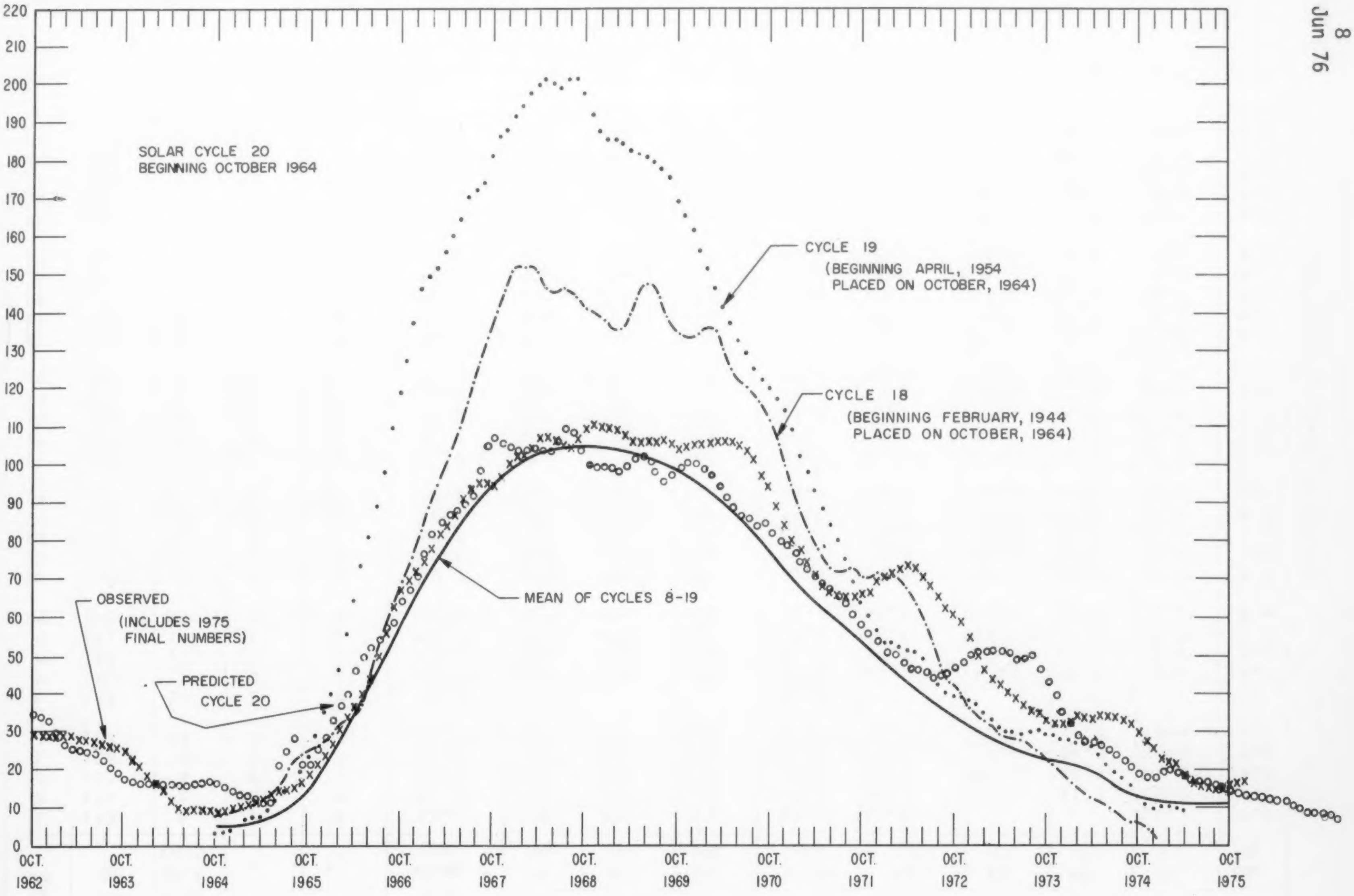
* adjusted for burst

DAILY SOLAR INDICES

JUNE 1976

JUN 1976	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX OTTAWA 2800	SOLAR FLUX ADJUSTED TO 1 A.U.								
			R_Z	$R_{A'}$		AFGL 15400	AFGL 8800	AFGL 4995	OTTAWA 2800	AFGL 2695	AFGL 1415	AFGL 606	AFGL 410	AFGL 245
1	153	6	0	0	66.5	526	271	111	68.4	66.8			21.1	7.8
2	154	7	0	0	66.0	516	271	111	67.9	65.7	40.6	33.2	23.0	8.0
3	155	8	0	0	66.2	515	268	110	68.1	65.6	41.9	32.9	21.1	8.2
4	156	9	0	0	66.5	515	270	112	68.4	65.6	39.4	34.3	20.0	8.0
5	157	10	0	0	66.7	511	269	112	68.7	66.7	40.5	34.8	19.4	11.2
6	158	11	0	0	67.3				69.3					
7	159	12	0	0	67.0	508	264	112	69.0	66.2	43.3	34.4	20.3	8.1
8	160	13	11	9	68.6	512	268	112	70.7	67.1	43.0	35.0	20.2	8.4
9	161	14	10	10	68.0	517	273	114	70.1	68.4	42.7	37.8	21.3	8.2
10	162	15	7	9	68.9	507	268	113	71.0	66.8	43.5	35.9	21.0	8.6
11	163	16	7	6	69.3	519	268	113	71.4	68.0	44.1	35.7	20.7	8.9
12	164	17	8	4	69.5	519	274	113	71.7	70.2	45.0	37.7	21.8	8.6
13	165	18	8	4	69.8	519	276	114	72.0	70.0	45.2	37.0	22.0	8.2
14	166	19	15	14	71.4	521	272	116	73.7	70.9	46.7	39.9	21.2	8.6
15	167	20	18	17	72.0	512	273	115	74.3	70.8	46.1	35.9	21.2	8.5
16	168	21	12	16	74.7	522	275	118	77.1	73.5	49.6	36.6	21.5	9.3
17	169	22	18	21	74.7	518	273	119	77.1	73.9	47.2	36.8	21.9	9.6
18	170	23	24	22	75.4	517	266	119	77.9	75.3	48.9	37.7	21.6	7.6
19	171	24	23	20	74.4	524	270	117	76.9	74.1	49.2	38.0	22.8	9.3
20	172	25	17	23	74.4	517	268	117	76.9	75.3	47.2	38.9	20.3	8.4
21	173	26	30	27	75.2	516	269	118	77.7	74.5	47.7	38.2	20.2	8.0
22	174	27	31	24	76.4	518	273	118	78.9	75.5	49.9	36.0	22.1	8.4
23	175	1	23	21	74.1	527	273	116	76.5	72.4	46.6	35.4	20.4	8.8
24	176	2	26	15	72.8	521	274	116	75.2	71.4	44.8	35.3	19.9	8.1
25	177	3	19	13	72.5	519	267	117	74.9	71.7	45.9	35.2	19.9	8.3
26	178	4	19	16	71.9	510	273	116	74.3	71.2	45.9	36.2	20.3	8.5
27	179	5	9	8	70.4	521	270	113	72.8	69.1	42.3	34.9	20.5	8.3
28	180	6	16	11	69.4	523	267	112	71.8	68.5	42.9	34.3	19.1	8.0
29	181	7	11	9	69.0	512	267	114	71.3	68.8	44.1	34.6	19.1	8.1
30	182	8	10	9	68.0	518	264	112	70.3	67.0	43.2	34.2	20.9	8.5
MEAN			12.4	10.9	70.6	517	270	114	72.8	70.0	44.9	36.0	20.9	8.5

* Adjusted for burst.



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS
CYCLE 20

MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1964										9.6	10.2	11.0
1965	11.7	12.0	12.5	13.6	14.6	15.0	15.5	16.4	17.4	19.7	22.3	24.5
1966	27.7	31.3	34.5	37.4	40.4	44.6	50.3	56.6	63.1	67.6	70.2	72.7
1967	75.0	78.8	82.2	84.6	87.4	91.3	94.1	95.3	95.3	95.0	97.1	100.6
1968	102.6	102.9	104.7	107.2	107.6	106.6	105.2	104.8	107.0	109.9	110.6	110.1
1969	110.0	109.6	108.0	106.4	106.2	106.1	105.8	106.4	105.4	104.1	104.6	104.9
1970	105.6	106.0	106.2	106.1	105.8	105.3	103.8	101.0	97.2	93.9	89.4	84.1
1971	80.4	77.8	74.4	70.9	68.1	66.7	65.4	64.6	65.8	66.2	66.0	69.4
1972	70.8	71.2	72.4	73.4	72.9	70.5	68.2	65.5	62.2	60.6	58.7	55.1
1973	50.9	46.5	44.2	42.7	40.7	39.1	37.5	36.1	34.4	32.6	31.0	31.5
1974	32.7	34.4	34.0	33.9	34.6	34.5	34.0	33.1	32.1	30.3	27.6	25.2
1975	23.9	22.2	21.3	18.6	16.9	16.0	15.0	14.3	14.5	15.6	16.3	16.5
1976	15.0 (--)	13.4 (--)	12.2 (--)	11.1 (--)	10.2 (--)	9.4 (--)	8.6 (--)	8.1 (--)	7.5 (--)	7.0 (--)	6.6 (--)	6.1 (--)

For each month, the upper figure is the observed or predicted Zürich smoothed sunspot number. The lower figure in parenthesis is the corresponding absolute value of the 90% prediction interval, an indication of the uncertainty above and below the predicted number. Observed numbers are those with no prediction intervals. The observed smoothed sunspot numbers are based on final Zürich numbers through 1975.

The predicted sunspot numbers are derived from a regression analysis based on cycles 8 through 19. Tests indicate that earlier cycles are from a different statistical population. From July 1968 - February 1970 a regression analysis based on cycles 1 through 19 was used because it had not then been proven that two populations exist.

Hα SOLAR FLARES

JUNE 1976

OBSERVATORY	OBSERVED UT: DATE JUN	OBSERVED UT: START	OBSERVED UT: MAX. PHASE	OBSERVED UT: END	LOCATION: APPROX. LAT.	LOCATION: APPROX. MER. DIST.	LOCATION: CENTRAL DISTANCE	LOCATION: MCMATH PLAGE REGION	LOCATION: CMP DAY	DURATION MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS: TIME UT	MEASUREMENTS: MEAS. AREA Mil. of Disk	MEASUREMENTS: CORR. AREA Sq. Deg.	REMARKS
WEND	08	1228		1244	S25	W30	.588		6.3	16	SN						
WEND	08	1304		1312	S24	W29	.569		6.4	8	SF						
MCMA	08	1510	1514	1516	S13	E24	.432	14259	10.4	6	SF		C	1514	30	.4	DH
MCMA	08	1640	1650	1715D	S25	W33	.620	14259	6.2	35D	SN		C	1650	30	.4	DH
HTPR	08	1647	1651	1713	S24	W35	.636		6.1	26	SF		C	1651	20	.2	
HTPR	09	0908	0913	0920	S22	W44	.726		6.1	12	SN		C	0913	10	.1	
UPIC	09	0910	0915	0915U	S23	W43	.719		6.2	5U	SF		P	0915	41		
CATA	09	0910	0910	0925	S24	W43	.723		6.2	15	SN	2		0910	28	.4	
UPIC	10	0449	0505	0525	S23	W53	.818		6.2	36	SF		P	0505	20		
HTPR	10	0639	0642	0650	S23	W54	.827		6.2	11	SF		C	0642	10	.2	
RAMY	10	1044	1050	1055	S26	W55	.842		6.3	11	SF	3	C		44		
HTPR	10	1045	1045	1055	S24	W56	.846		6.2	10	SN		C	1045	20	.3	
HTPR	11	1542	1554	1624	S45	E40	.815		14.7	42	SF		C	1554	10	.1	
CATA	12	0740	0750	0815	S46	E30	.769		14.6	35	SF	2		0750	56	1.0	
HTPR	12	0745	0748	0754	S45	E30	.761		14.6	9	SF		C	0748	30	.4	E
ATHN	12	0747E	0748	0751	S45	E29	.756		14.5	4D	SN	4	C		32		DE
HTPR	12	1230	1234	1240	S45	E28	.751		14.6	10	SF		C	1234	30	.4	E
ISTA	14	0720		0745	N02	E80	.985		20.3	25	SN						D
ISTA	15	0735		0755	N02	E67	.921		20.3	20	SN						E
HTPR	15	1206	1208	1212	N02	E60	.867		20.0	6	SF		C	1208	20	.3	
MCMA	15	1314E	1337	1414D	N02	E66	.915	14275	20.5	60D	SF		C	1337	25	.6	D
HTPR	15	1317	1335	1416	N01	E62	.884		20.2	59	SN		C	1335	20	.3	
ATHN	15	1323E	1324U	1329	N 2	E64	.900		20.4	6D	SF	3	C		19		DE
CATA	15	1330	1335	1400D	N01	E65	.907		20.4	30D	SN	2		1335	28	.7	
RAMY	15	1630E	1630U	1636	N 3	E58	.850		20.0	6D	SF	3	C		45		DE
HTPR	16	1023	1032	1041	N03	E50	.769		20.2	18	SF		C	1030	10	.1	
HTPR	16	1154	1207	1240	N02	E50	.768		20.2	46	SB		C	1207	20	.3	E
ATHN	16	1204E	1207U	1238	N 1	E51	.778		20.3	34D	SN	4	C		80		F
ATHN	16	1204E	1207U	1238	N 1	E51	.778		20.3	34D	SN	4	V		80		F
RAMY	16	1213E	1214U	1234	N 4	E56	.832	14275	20.7	21D	1N	2	C		224		U F
HTPR	16	1636	1641	1701	N02	E48	.746		20.3	25	SF		C	1641	30	.5	E
HTPR	16	1708	1709	1714	S42	W24	.706		14.9	6	SF		C	1709	10	.1	
HTPR	16	1744		1751D	N02	E46	.722		20.2	7D	SN		C	1747	70	1.0	E
MCMA	16	1937E	1940	2020D	S46	W25	.750	14267	14.9	43D	SN		C	1940	40	.7	EH
PALE	16	2314	2315	2320D	N 3	E43	.686		20.2	6D	SF	2	C		95		F
PALE	17	0308E	0312	0316D	N 3	E40	.648		20.1	8D	SF	2	C		50		
KODA	17	0447E	0447	0456	N04	E42	.675		20.3	9D	SN		V	0447			ED
HTPR	17	0537	0540	0550	N03	E40	.648		20.2	13	SF		C	0540	20	.2	E
HTPR	17	0613	0618	0700	N02	E40	.646		20.3	47	SB		C	0618	60	.7	E
ISTA	17	0710		0745	N02	E40	.646		20.3	35	SN						F
CATA	17	0715	0720	0735	N01	E40	.645		20.3	20	SB	2		0720	84	1.1	
HTPR	17	0801	0808	0822	N02	E39	.633		20.3	21	SF		C	0808	30	.3	E
CATA	17	0805	0810	0820D	N02	E36	.592		20.0	15D	SB	2		0810	84	1.1	
ATHN	17	1523	1525	1536	N 1	E32	.533		20.0	13	SB	4	V		48		Z
MCMA	17	1524E		1524D	N03	E33	.551	14275	20.1		SB		P	1524	35	.4	DH
RAMY	17	1527E	1527U	1531	N 3	E32	.537		20.0	4D	SF	2	C		45		DE
MCMA	17	1641E	1645	1655D	N03	E32	.537	14275	20.1	14D	SF		C	1645	100	1.2	E
MCMA	17	2155	2159	2249D	N03	E31	.522	14275	20.2	54D	SF		C	2159	40	.5	D
UPIC	18	0945	1000	1030	N03	E25	.431		20.3	45	SF		P	1000	82		
MCMA	18	1106E		1300D	N03	E23	.400	14275	20.2	114D	SN		C	1120	40	.5	D
UPIC	18	1115	1130	1135D	N02	E24	.413		20.3	20D	SF		P	1130	61		
HTPR	19	0910	0913	0917	N02	E09	.173		20.1	7	SF		C	0913	20	.2	E
HTPR	19	1534	1535	1541	N02	E07	.142		20.2	7	SF		C	1535	20	.2	E
CATA	20	0910	0930	1010	N03	W22	.384		18.7	60	SF	2		0930	56	.6	
ATHN	21	1402E	1404	1412	N 3	W19	.336		20.2	10D	SF	4	C		48		DE
HTPR	22	0815	0818	0825	S27	E70	.948		27.6	10	SN		C	0818	30	.6	
ARCE	22	0820E		0830	S25	E69	.941		27.5	10D	SN		C	0825	29		H
MCMA	22	1328E		1408D	N02	W52	.789	14282	18.7	40D	SN		C	1329	25	.5	D
HTPR	22	1404	1412	1425	S27	E67	.932		27.6	21	SN		C	1412	50	.9	

Hα SOLAR FLARES

JUNE 1976

OBSERVATORY	OBSERVED UT				LOCATION					DURATION	IMPORTANCE	OBS.		MEASUREMENTS			REMARKS
	DATE JUN	START	MAX. PHASE	END	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Mill. of Disk	CORR. AREA Sq. Deg.	
↑└ MCMA	22	1405		1408D	S25	E68	.936	14287	27.7	30	SN		P	1408	30	.9	EH
HTPR	23	0536	0542	0544	S28	E58	.876		27.6	8	SF		C	0542	10	.1	
HTPR	25	0800	0805	0808	S01	W45	.707		22.0	8	SF		C	0805	10	.1	
HTPR	26	1632		1644	N06	W80	.985		20.7	12	SF		C	1635	10	.2	

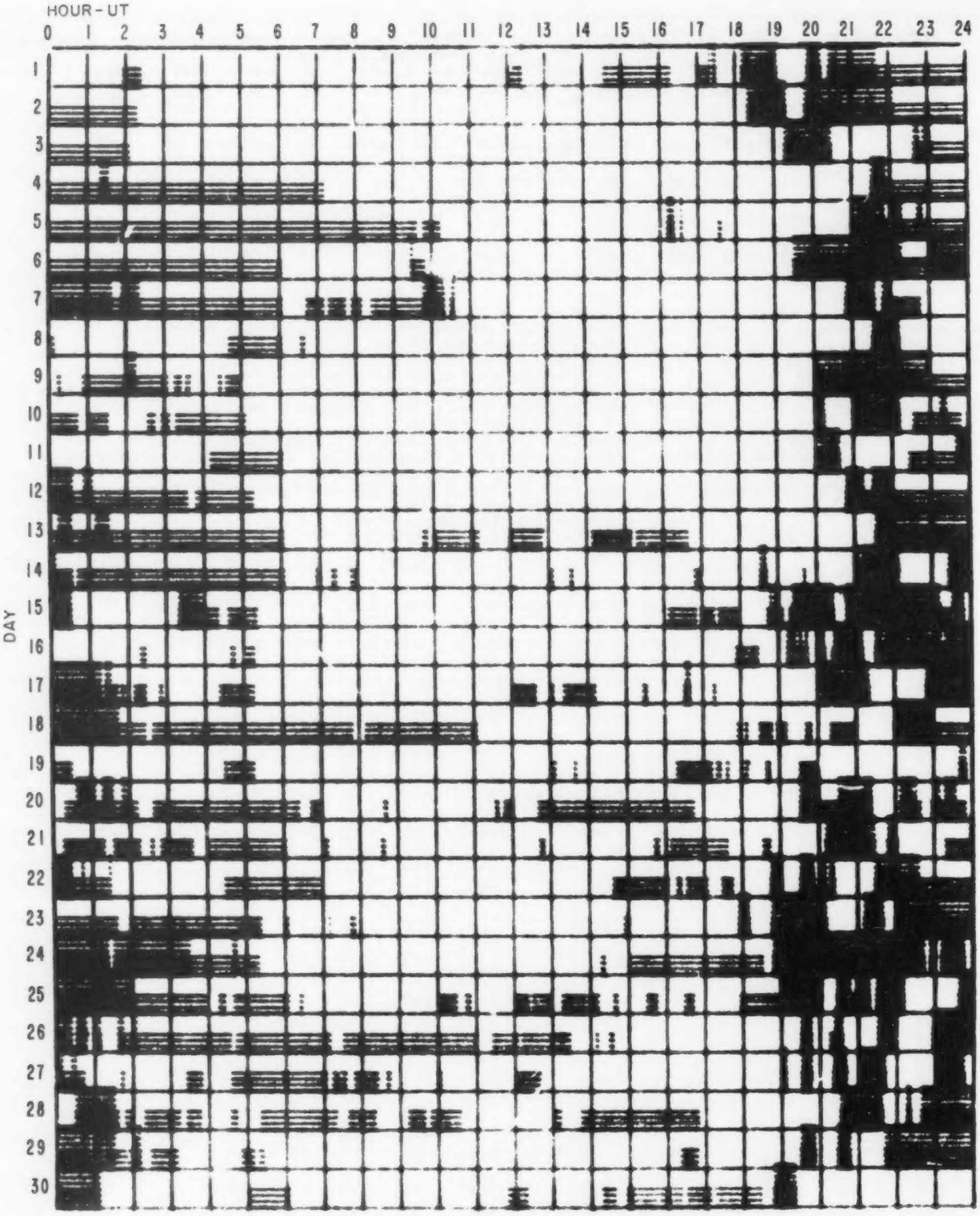
"Remarks":

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by a high speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the calcium II lines H and K.
P = Flare shows helium D_3 in emission.
Q = Flare shows the Balmer continuum in emission.
R = Marked asymmetry in Hα line suggests ejection of high velocity material.
S = Brightness follows disappearance of filament (same position).
T = Region active all day.
U = Two bright branches, parallel (||) or converging (Y).
V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide Hα line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

JUNE 1976



Observatories included in total patrol:

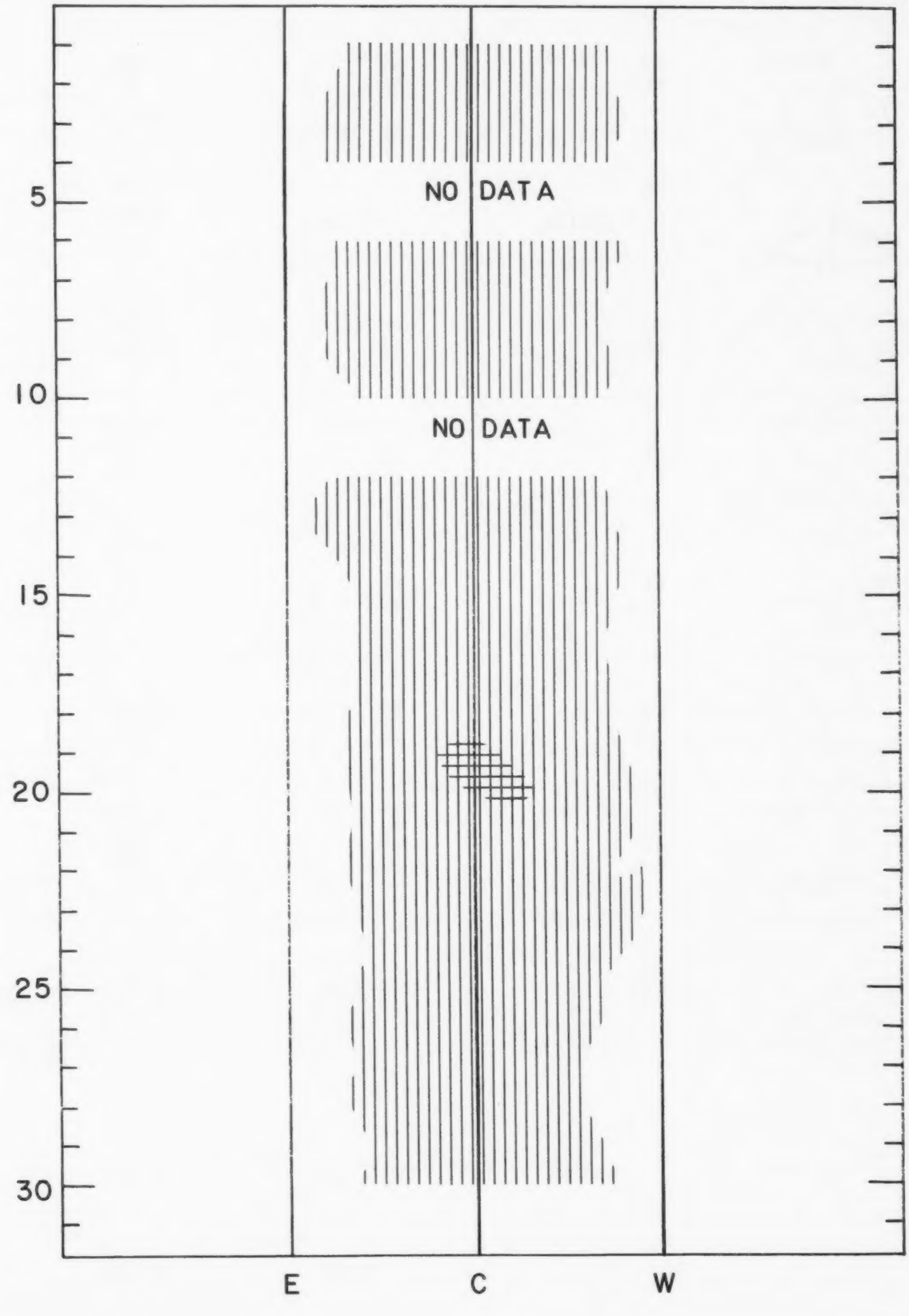
Arcetri
Athenes
Bucharest
Catania
Haute Provence
Herstmonceux
Huancayo
Istanboul
Kodaikanal
Manila
McMath-Hulbert
Mitaka
Palehua
Ramey
Tehran
Upice
Wendelstein

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

JUNE 1976

Nançay 169 MHz



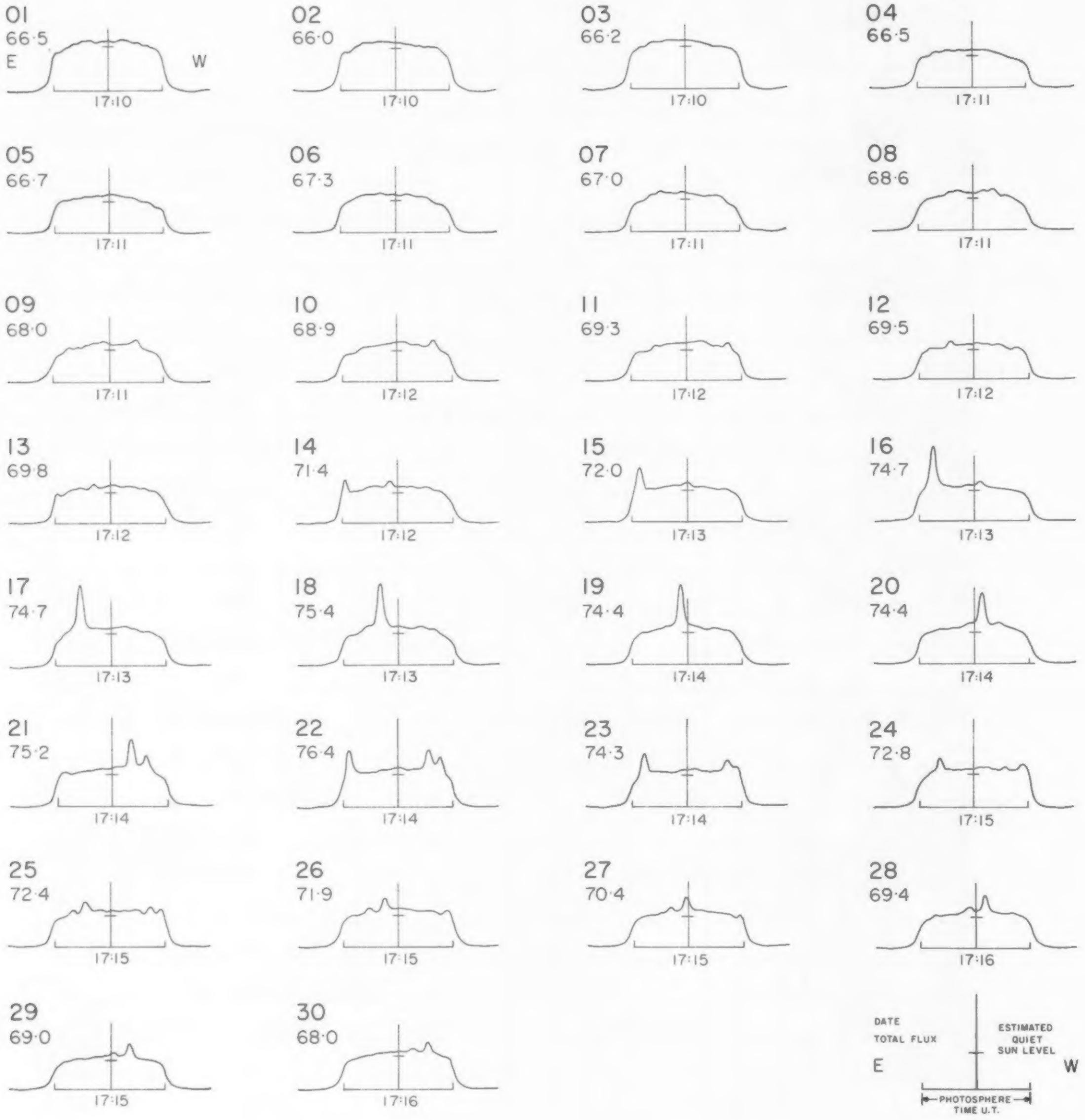
14
Jun 76

EAST-WEST SOLAR SCANS

JUNE, 1976

ALGONQUIN RADIO OBSERVATORY
CANADA

10·7cm
Fan Beam with 1·5 minutes of arc
E-W Resolution

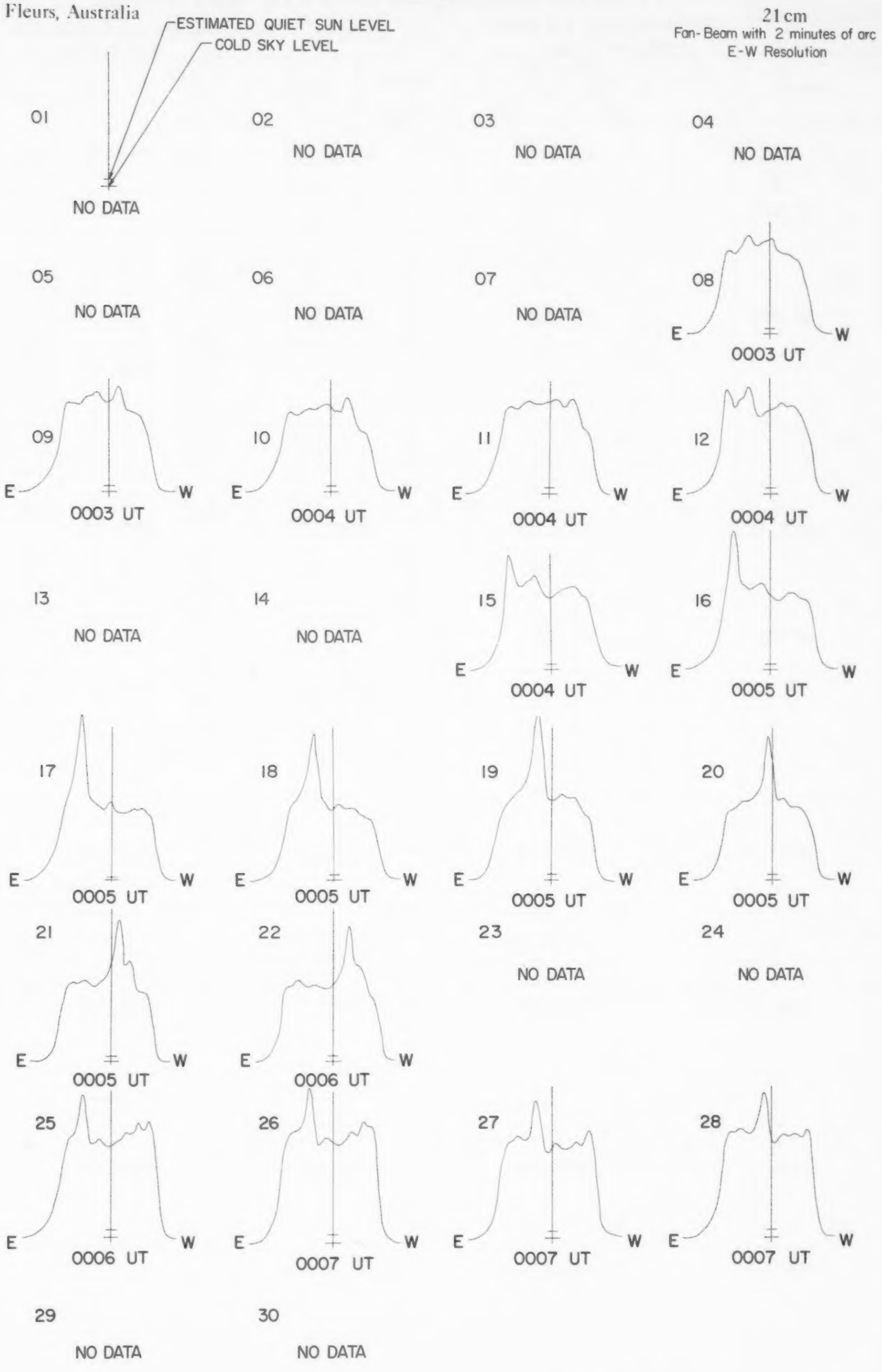


EAST-WEST SOLAR SCANS

JUNE 1976

Fleurs, Australia

21 cm
Fan-Beam with 2 minutes of arc
E-W Resolution



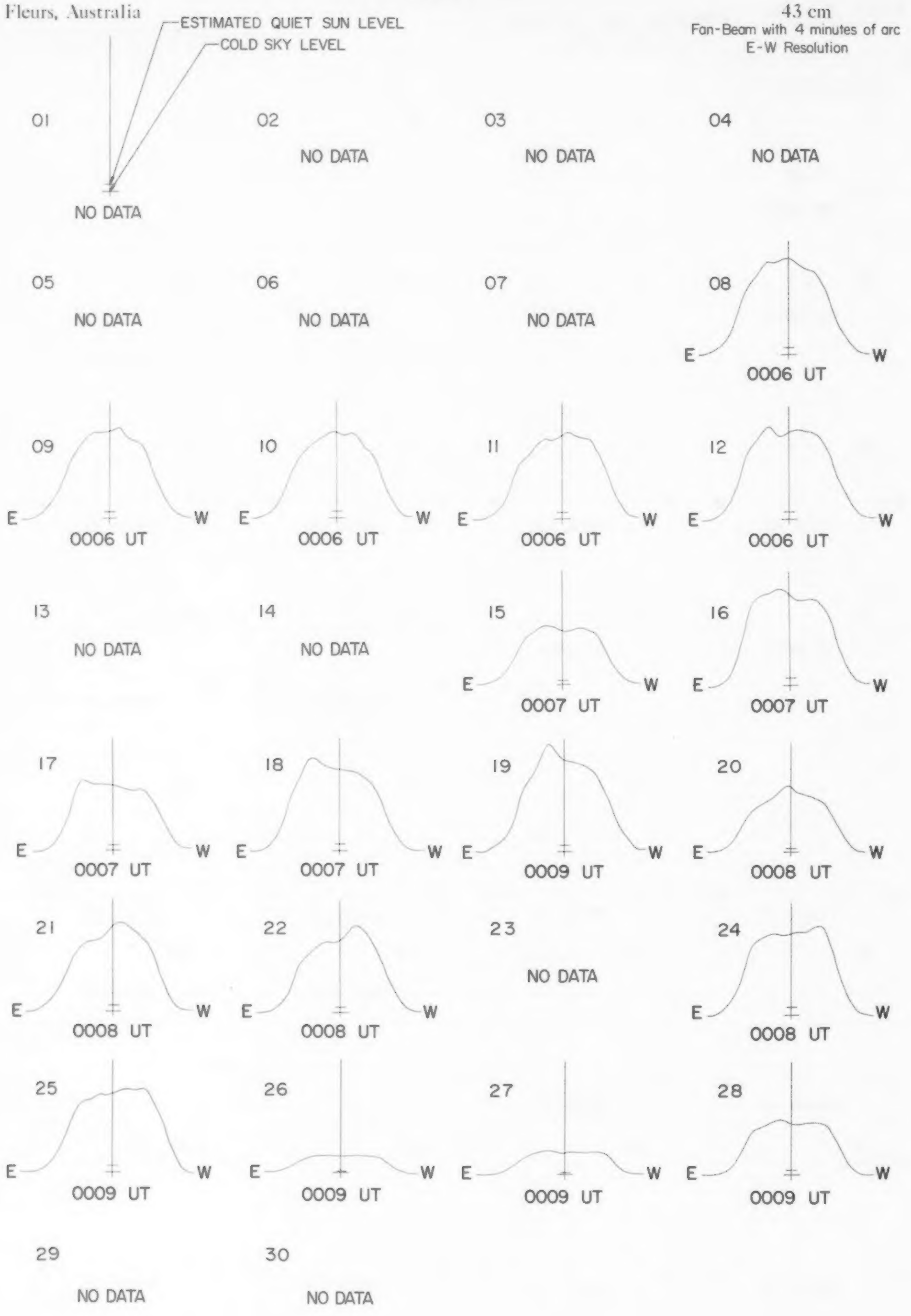
16
Jun 76

EAST-WEST SOLAR SCANS

JUNE 1976

Fleurs, Australia

43 cm
Fan-Beam with 4 minutes of arc
E-W Resolution



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

JUNE 1976

	FREQUENCY	STATION	TYPE		STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY $10^{-22} Wm^{-2} Hz^{-1}$ PEAK	MEAN	INT	REMARKS
2	2695	BOUL	8	S	1856	1856.5	2.5	39	13		
	2695	BOUL	8	S	1901	1901.5	1	21	7		
7	2695	BOUL	1	S	1712	1713.5	3	3	1		
11	2695	SGMR	4	S/F	1929.8	1930.4	1.3	23.2	7		
16	2800	OTTA	1	S	1158	1159	8	2.8	1.6		
	2800	OTTA	2	S/F	1225 E	1225.5	4 D	9.8			
	2695	SGMR	2	S/F	1224.1	1225.6	5.1	8.5	2.5		
	2800	OTTA	20	GRF	1311.8	1312.1	16	1.8	0.8		
	2800	OTTA	32	ABS	1410	1520	110	1.8	0.9		
	2800	OTTA	32	ABS	1720	1820	140	1.8	0.9		
	2800	OTTA	8	S	1951.2	1951.2	0.5	0.8	0.4		
	2800	OTTA	1	S	2030	2031.5	3	1	0.5		
	2800	OTTA			2030		60	0.8			
	2695	BOUL	8	S	2045	2046.5	2	6	2		
	2695	BOUL	8	S	2119.5	2120.5	1.5	4	1		
	2800	OTTA	20	GRF	2205	2221	30	1.2	0.6		
	2695	PENT	21	GRF	2307	2320	95	2.8	1.4		
	2695	MANI	4	S/F	2311	2316	17.5	12.6	3.8		
	8800	MANI	4	S/F	2312.7	2316	15.8	30.7	7.1		
	2695	PENT	2	S/F	2312.7	2316	7	9	3		
	2695	BOUL	45	C	2313	2317	11.5	10	3		
17	2800	OTTA	27	RF	1215		205	1.4	1		
	2800	OTTA	24	R	1215	1245	30	1.4	0.8		
	2800	OTTA	24P	R	1245		90	1.4			
	2695	BOUL	3	S	1343.5	1344	2	3	1		
	2800	OTTA	26A	FAL	1415	1540	85	1.4	0.7		
	2695	SGMR	2	S/F	1523.7	1523.8	1.2	2	.6		
	2800	OTTA	1	S	1527	1527.1	1	1.8	0.8		
	2695	BOUL	1	S	2256	2256.5	1.5	4	1		
18	2695	BOUL	8	S	1502.5	1504.5	3	7	2		
	2695	BOUL	8	S	1616.5	1617.5	3	11	4		
	2695	BOUL	8	S	1619.5	1620.5	4	16	5		
22	2800	OTTA	20	GRF	1410	1440	115	1	0.5		
23	2695	BOUL	2	SF	1935.5	1937.5	3.5	4	1		

Observatories:

BOUL = Boulder   MANI = Manila   OTTA = Ottawa ARO   PENT = Penticton   SGMR = Sagamore Hill

Explanation of Type Code:

1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

SOLAR WIND

Interplanetary Scintillations

JUNE 1976

UCSD 74 MHZ SCINTILLATIONS

DAY	3C48 VEL	3C48 ERR	3C144 VEL	3C144 ERR	3C147 VEL	3C147 ERR	3C161 VEL	3C161 ERR	3C237 VEL	3C237 ERR	3C273 VEL	3C273 ERR	3C298 VEL	3C298 ERR	3C459 VEL	3C459 ERR
1	572	96			328	155	564	51								
2	744	57					479	32	294	73						
3	647	147			444	199	462	44			320	24				
4	913	41			523	134					318	60	282	38		
5	1288	125					497	31			0	0				
6	1057	52					404	78	170	15	373	42				
7	1038	35					567	63	224	2						
8	987	56					387	35								
9	1015	271					437	33								
10	988	199					429	9	227	48	199	36				
11	956	99			548	25	435	49			394	6				
12	930	186			526	75	364	36	218	37	0	0				
13	831	96					378	37	187	7	300	27	316	54		
14	913	50			651	*	439	26	272	1						
15	837	114			593	176	435	53	308	39						
16	736	156			421	51	509	40	350	45						
17	672	21			497	80	438	87	371	86	363	32	388	65	473	92
18					671	14	378	11	173	7	498	79	363	72	407	132
19	856	153			559	55	414	34								
20					571	33	446	114	191	10	297	42				
21	753	141			671	39	427	46	318	8	294	36				
22					596	145	516	130	385	56	271	20	318	115		
23	624	106			739	53	433	50	403	42	334	58	326	22		
24	492	189			619	72	451	101			368	19	311	14		
25							540	164	275	31						
26					430	38										
27	653	65			1032	47	554	127								
28	835	255	971	184	851	96	523	194	234	32	167	42	259	25	362	166
29	771	136			512	89	391	44	278	23	237	40	180	28		
30	574	13	501	27	699	26	409	110	368	*	380	*	275	83		

JUNE	5 UT	5 LAT	5 DIST	5 DLON	15 UT	15 LAT	15 DIST	15 DLON	25 UT	25 LAT	25 DIST	25 DLON
3C48	17.	25.	0.71	38.	16.	20.	0.80	32.	15.	16.	0.88	25.
3C144	21.	-16.	0.14	-81.	20.	-35.	0.03	87.	19.	0.	0.19	79.
3C147	20.	50.	0.48	-41.	19.	63.	0.45	-20.	18.	63.	0.46	18.
3C161	22.	-46.	0.58	-32.	21.	-54.	0.52	-21.	21.	-58.	0.49	4.
3C237	2.	-3.	0.97	-17.	1.	-3.	0.91	-24.	0.	-4.	0.83	-33.
3C273	4.	0.	1.14	-14.	3.	0.	1.09	-16.	2.	1.	1.05	-17.
3C298	6.	3.	1.22	-10.	5.	4.	1.19	-12.	4.	5.	1.15	-13.
3C459	14.	4.	1.02	17.	13.	5.	1.06	16.	13.	6.	1.11	15.

* indicates data for which no error estimate is available, because only two antennas were operating.

SOLAR X-RAYS BY SATELLITE
SMS GOES

JUNE 1976

.5 - 4Å Hourly Averages (10^{-6} watts/m^2)

MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
6/ 1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	B
6/ 2	M	M	M	M	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/ 3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B
6/ 4	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B
6/ 5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/ 6	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	M	M	M	M	M	B
6/ 7	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B
6/ 8	B	B	B	B	B	B	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/ 9	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B	M	B	M	M	M	M	M	M	B	B
6/10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B
6/11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	B	B
6/15	B	B	B	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B
6/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	0.01	B
6/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B
6/18	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	B
6/19	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
6/20	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
6/21	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B
6/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/24	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B
6/28	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
6/29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

SOLAR X–RAYS BY SATELLITE
SMS GOES

JUNE 1976

1 - 8Å Hourly Averages (10^{-5} watts/m^2)

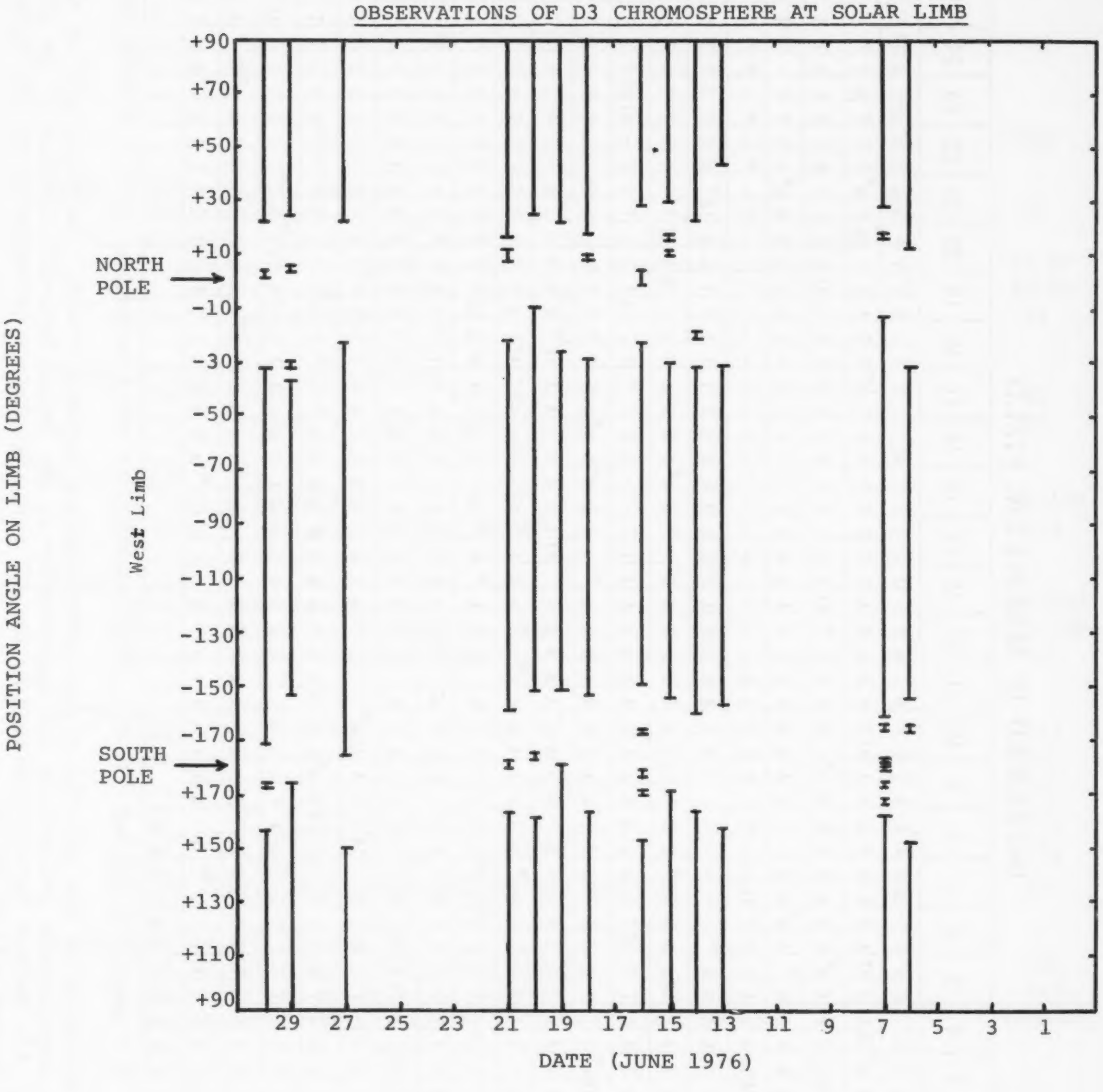
MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
6/ 1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	B
6/ 2	M	M	M	M	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/ 3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B
6/ 4	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B
6/ 5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/ 6	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	M	M	M	M	M	B
6/ 7	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B
6/ 8	B	B	B	B	0.14	0.12	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/ 9	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B	M	B	M	M	M	M	M	M	B	B
6/10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	B	B	B	B	B	B
6/11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	B	B
6/15	B	B	B	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B
6/16	B	B	B	B	B	B	B	B	B	B	B	B	0.02	B	B	B	B	M	M	B	B	B	B	0.02	B
6/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B
6/18	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	B
6/19	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
6/20	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
6/21	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B
6/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/24	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B
6/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B
6/28	M	M	M	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
6/29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
6/30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

CORONAL HOLES

Helium D3 Chromosphere at Solar Limb

JUNE 1976



INFERRED IP MAGNETIC FIELD

BARTELS ROTATION	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1935	1975 JAN 27	T T	T T	A T	AT T	A A*	A T-	TA A	A T	A T	A T	A T	A T	- T	T T	T T	AT T	T T	T T	T T*	T -	TA A	T A*	AT T	A TA	TA T	A A	A A
1936	FEB 23	TA A	A A	A A*	TA A	A AT	A A	A A	A A	A A	AT T	A A	A A	A T	T T	T T	T A	T A*	T T	T T	T TA	T A*	T T	T A	T *	T T	T T	A A
1937	MAR 22	A A	A A	TA A	T T	A A*	A A	A A	A A	AT A*	T A	A A	T *	TA T	T T	T T	T *	T A*	T T	A AT	A T	T T	A T	A A	T T	T T	A A	A A
1938	APR 18	A A	A A	A A	A A	A *	A A*	A A	- A	A A	A A	A A	T T	A A	A A	T T	- T	T T	- T	T T	T T	A A*	T T	T T	- A	T AT	T T	TA T
1939	MAY 15	T T	A A	TA TA	A A	A A	T T	TA TA	- *	A A	A A	A A	- -	- -	- -	- -	- -	- -	- -	- -	- -	T -	* -	* -	* *	T T	T T	A A
1940	JUN 11	A A	A A	A A	A A	A A	* -	- -	- -	- -	A A	A A	TA A	A AT	A A	A A	A A	T T	T T	T T	A A	TA *	A A	T T	T T	T T*	T T*	T T
1941	JUL 8	A A	A A	A A	A A	TA A	A A	TA *	A A	TA TA	A A	T T	A A	A A*	- *	A A*	A T	A A	T T	T TA	A AT	T T	T T	T T	T T	AT AT	A A	A A
1942	AUG 4	A A	A A	A T	A A	T T	AT T	A A	A A	A A	A A	A A	A A	A A	T T	T -	A T	T *.	T T	TA T	T T	T T	T -	AT AT	T T	T T	A A	A A
1943	AUG 31	A A	A A	TA A*	T T	A A	A A	TA A	T T*	A A	A A	A A	A A	A *	A A	A A*	A A*	A T	T T	T T	T -	T TA	T T	T T	T T	T T	A T	A A
1944	SEP 27	A A	T A	A A	A A	T T	T A	T -	A -	A -	A A*	A A	A A	A *	AT A	T T	A A	A A	AT *	T A	T T	T A	T T	T T	T T	T T	TA A	A -
1945	OCT 24	T T	T T	T T	T T	T TA	A A	A *	A A	A A	A A	A A*	A *	A A	A *	AT -	AT -	AT T	AT T	T T	T T	T T	T T	T A	T *	T T	T T	T T
1946	NOV 20	A T	A *	T T	TA T	T A	A T*	A T*	A A	A -	A -	A -	A A	A *	A *	A A	A A	A A	AT A	AT T	T T	T T	T T	T T	T *	T T	T T	T T
1947	DEC 17	T -	T T	T T	T T	T T	T T	TA *	A T	A T	A *	AT *	TA A	A A	A *	A A	A A	A A	T T*	T A	T *	T T	T T	T T	T A*	TA *	T *	T T
1948	1976 JAN 13	TA T	T T*	T TA	T T	TA A	TA T	AT T	A A	A T	A -	A -	A *	A A	A -	A -	A A	A -	A -	T T	T T	T T	T T	T T	T T	T T	TA T	T T
1949	FEB 9	T A	T A	T T	T -	T -	A T	T -	TA A	T A	AT A*	T T	A TA	A A	A A	A A	A T	A A	T T	T T*	T A	T T	T T	T T	T *	T A	T TA	TA *
1950	MAR 7	T A	T A	T T	T T	T T	T T	T -	T TA	A A*	A A	TA A	A A	A A	A A	A A	A A	* T	* T	AT T	T T	T T	T* T	T T	T T	T -	TA T	T T
1951	APR 3	T T	T T	T T	T T	T T	T T	T *	A A	A A	A A	A *	A A	A A	A A	A A	A A	A A	A A	AT A	TA T*	A T*	T T	T T	T *	AT T	TA A*	T T
1952	APR 30	T T	AT T	T T	T T	T T	T T	TA A	AT T*	A A	A -	A A	A A	A -	A -	A -	T T	A A	A A*	A TA	AT AT	T T	T T	A A*	T T	A A	T -	T T
1953	MAY 27	T -	T T	T T	T T	T T	T T	T *	TA T	A A	A A	A A	A T	A T	A -	T *	A A	A A	A -	T T	T A	T T	A A	T T*	A A	T A	A A	A A
1954	JUN 23	T T	T T	T T	T T	T T	AT A	T T	A A																			

T = towards the sun   A = away from the sun   * = effect doubtful or not discernable   - = missing data

The table shows daily inferences of the polarity of the interplanetary magnetic field. The first half of the day is based principally on magnetograms produced by the magnetometer at the Vostok Antarctic Station of the USSR. The magnetometer of the U.S. Air Weather Service operated by the Air Force Geophysics Laboratories at the Thule Geopole Station is used for the second half of the day.

MAY 1976 DATA

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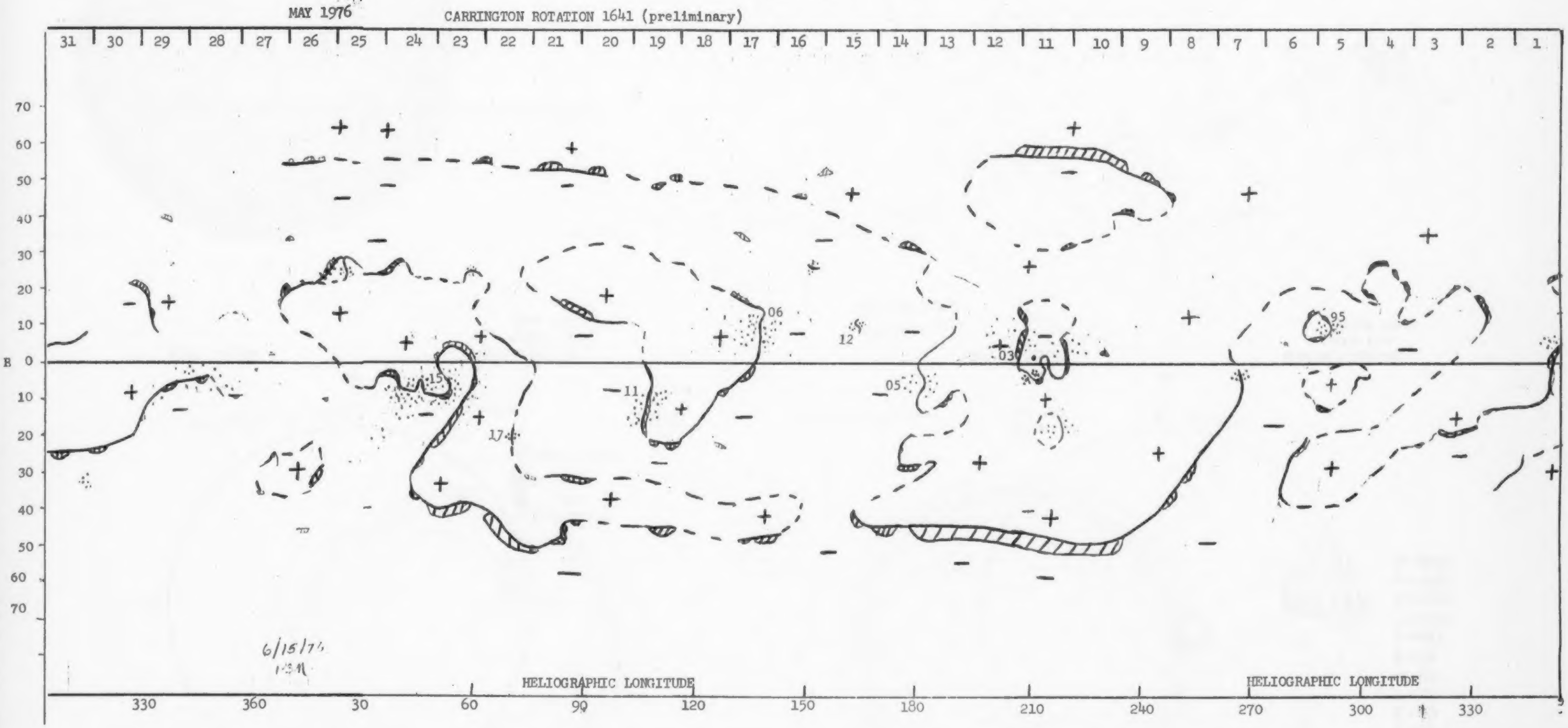
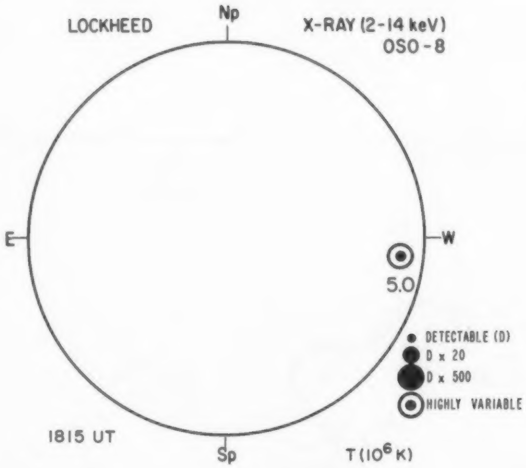
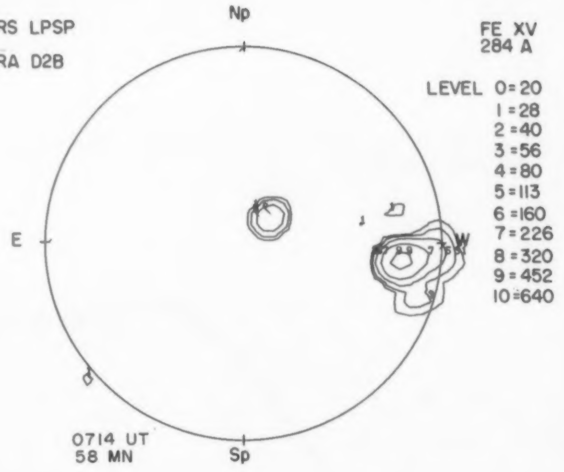
Hα SYNOPTIC CHART

MAY 1976



MAY 1, 1976 ($P = -24.16$, $B_o = -4.12$, $L_o = 353.75$)





KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

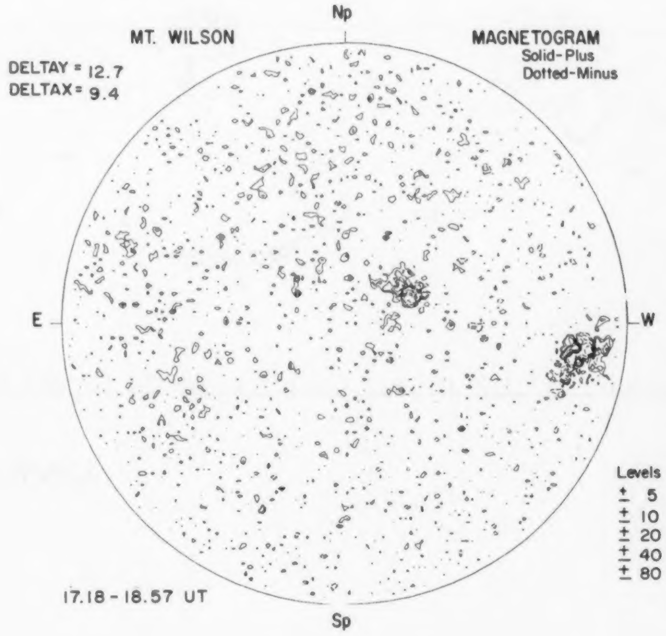
Np

E

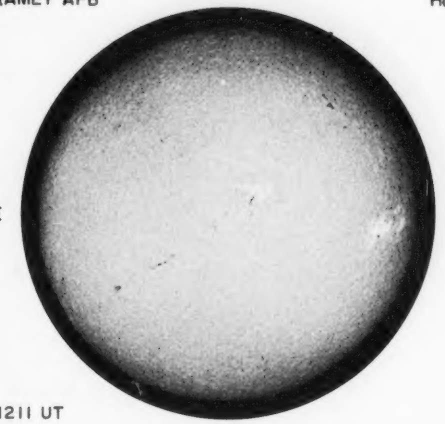
NO MAGNETOGRAMS WERE PRODUCED AT KITT PEAK OBSERVATORY DURING THE MONTH OF MAY 1976.

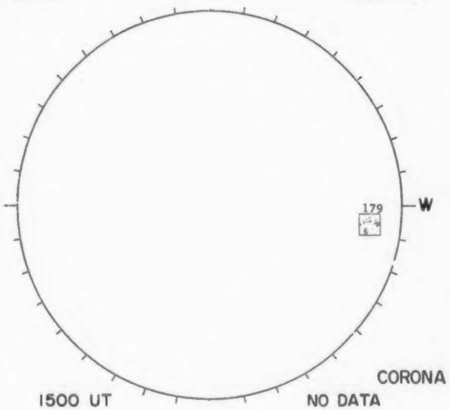
W

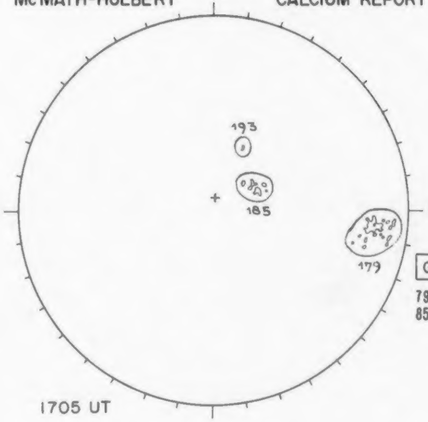
Sp

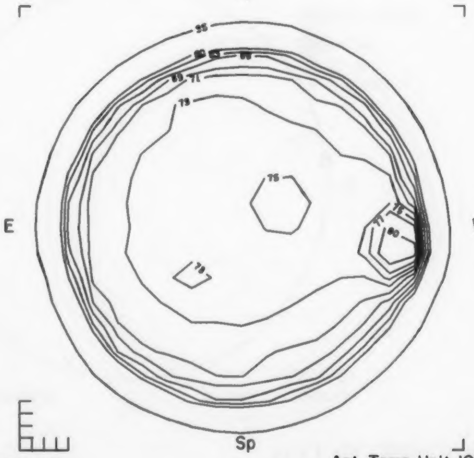


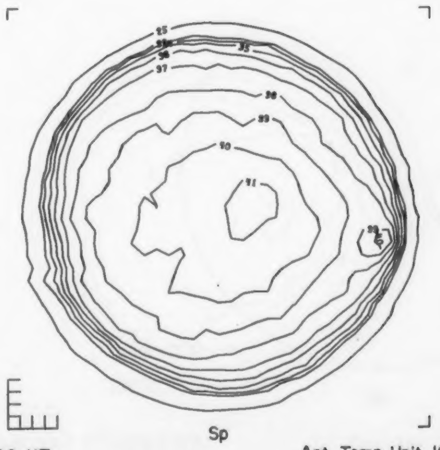
01


RAMEY AFB
Hα
Np
E
W
Sp
1211 UT

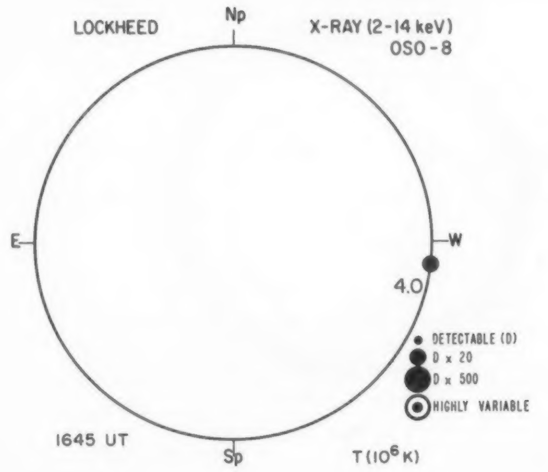

BOULDER
SUNSPOTS
Np
E
W
Sp
179
1500 UT
CORONA
NO DATA

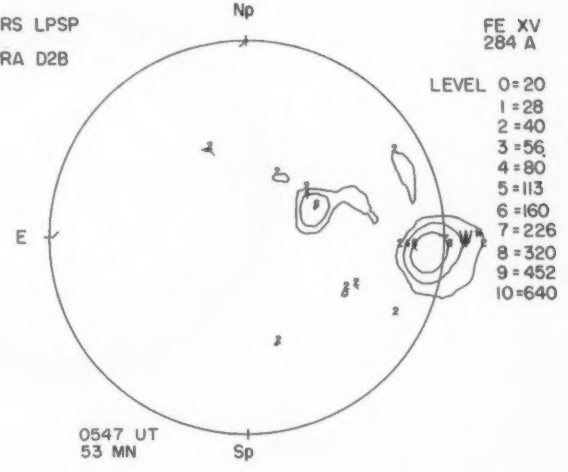

McMATH-HULBERT
CALCIUM REPORT
Np
E
W
Sp
193
185
179
1705 UT
GOOD S
79-2300-3.5
85-0600-3.0

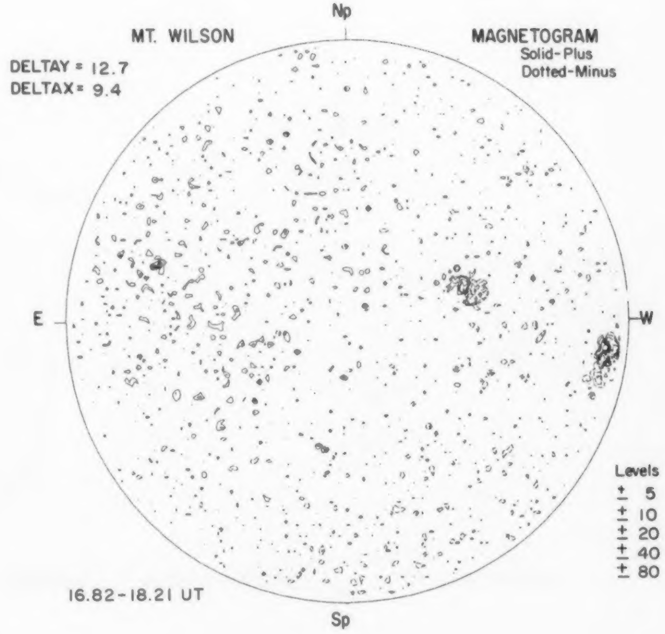

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1711 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1546 UT
Ant. Temp. Unit 100°K

MAY 2, 1976 (P = -23.97, B_o = -4.02, L_o = 340.53)

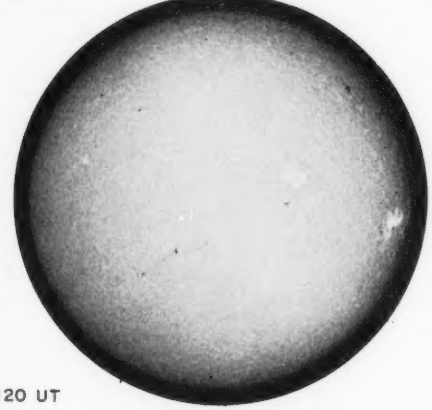






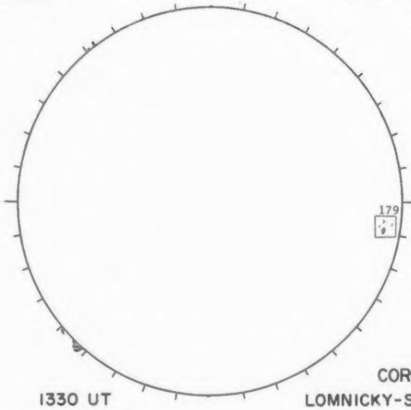
02

RAMEY AFB   Np   Hα



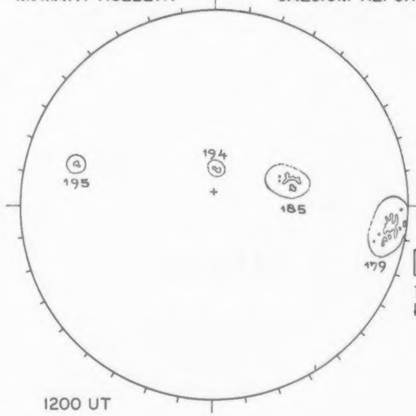
1120 UT   Sp

BOULDER   Np   SUNSPOTS



1330 UT   Sp   CORONA LOMNICKY-STIT

McMATH-HULBERT   Np   CALCIUM REPORT

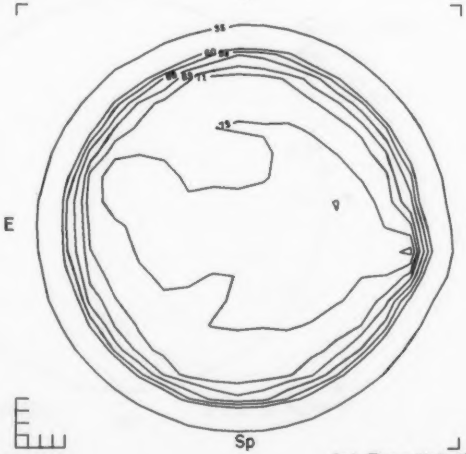


FAIR	D

79 - 2000 - 3.5
85 - 0600 - 3.0

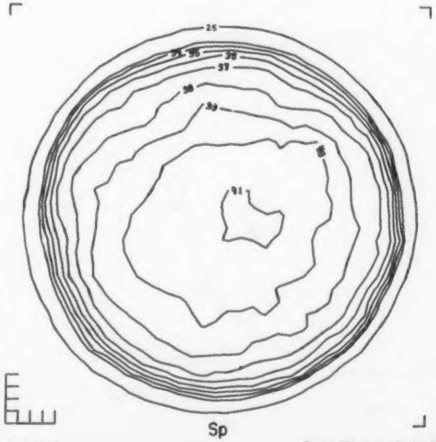
1200 UT   Sp

NELC LA POSTA   2.0 CM   Np



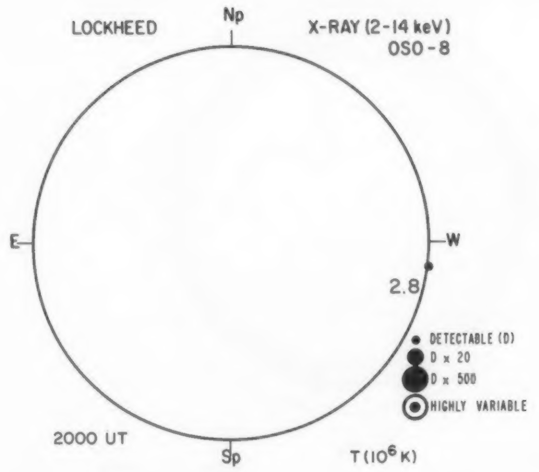
1955 UT   Sp   Ant. Temp. Unit 100°K

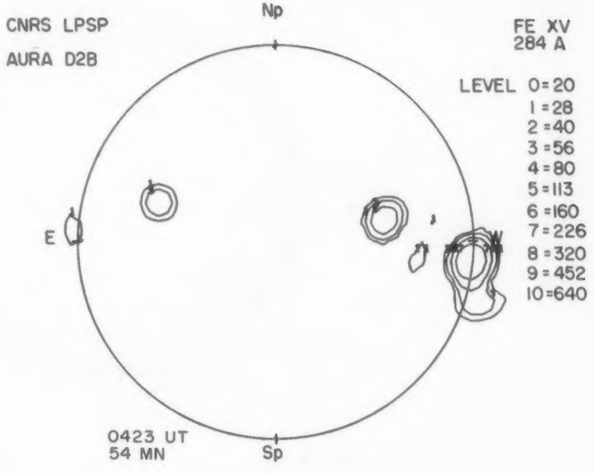
NELC LA POSTA   8.6 MM   Np

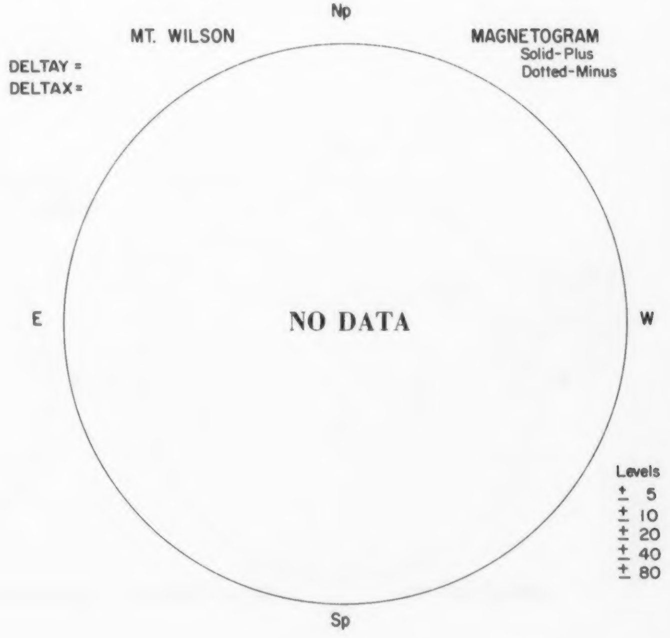


1816 UT   Sp   Ant. Temp. Unit 100°K

MAY 3, 1976 (P =-23.78, B_o =-3.91, L_o = 327.31)

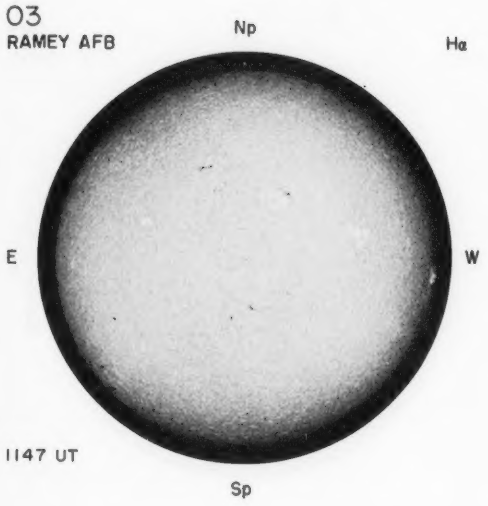




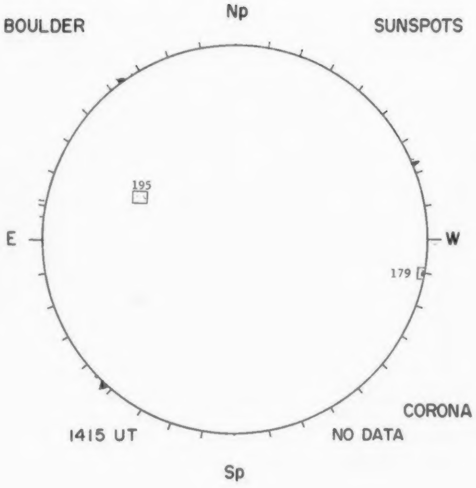


03

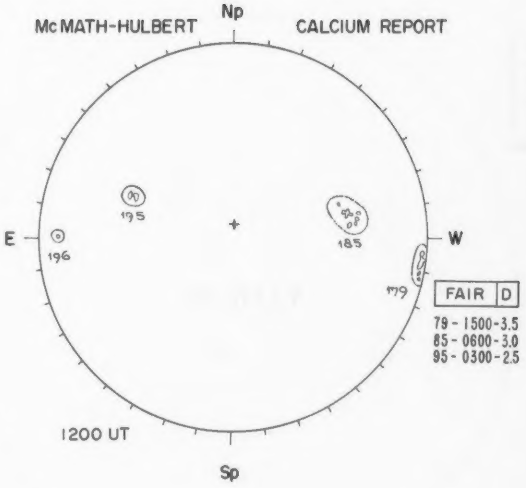
RAMEY AFB



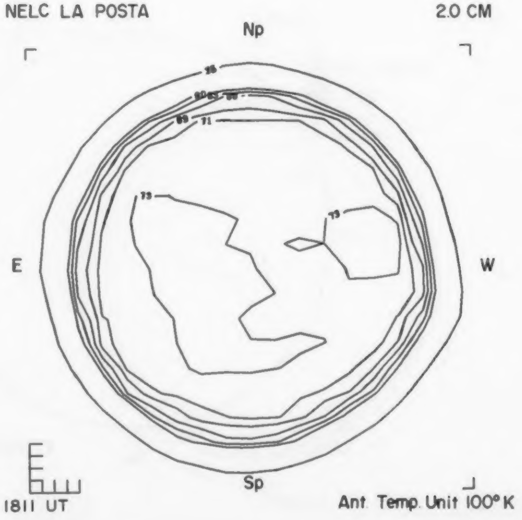
BOULDER SUNSPOTS



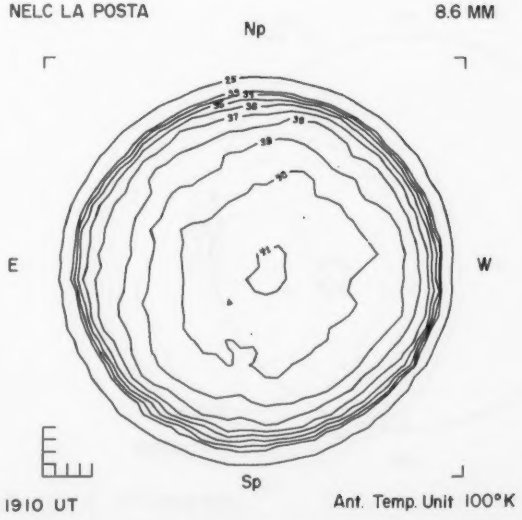
McMATH-HULBERT CALCIUM REPORT



NELC LA POSTA 2.0 CM



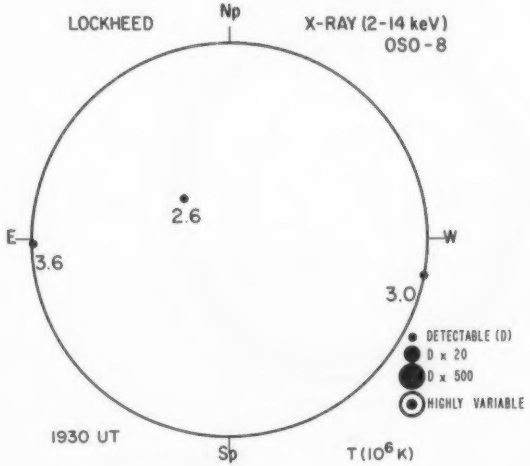
NELC LA POSTA 8.6 MM



MAY 4, 1976 (P = -23.59, B_o = -3.81, L_o = 314.10)

LOCKHEED

X-RAY (2-14 keV)
OSO-8

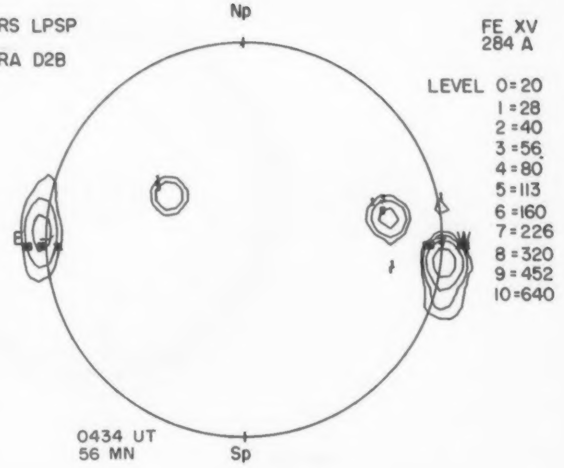


1930 UT

T (10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A



0434 UT
56 MN

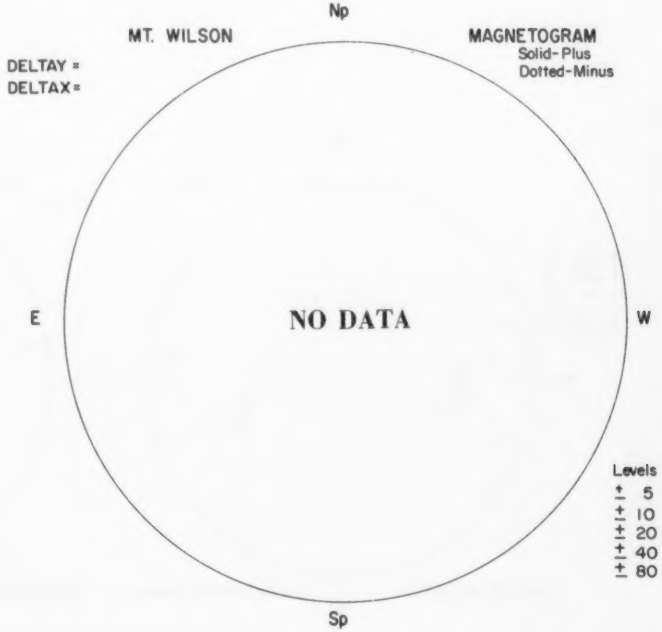
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

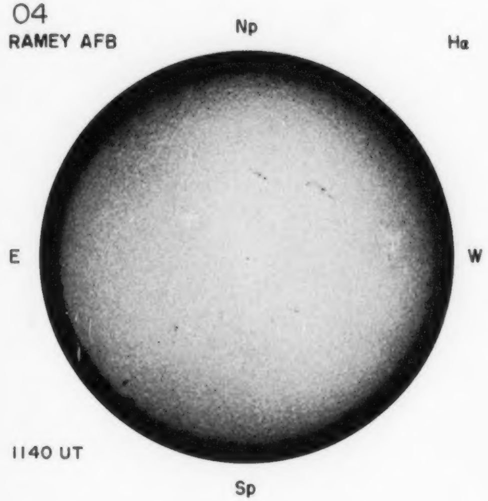
MT. WILSON

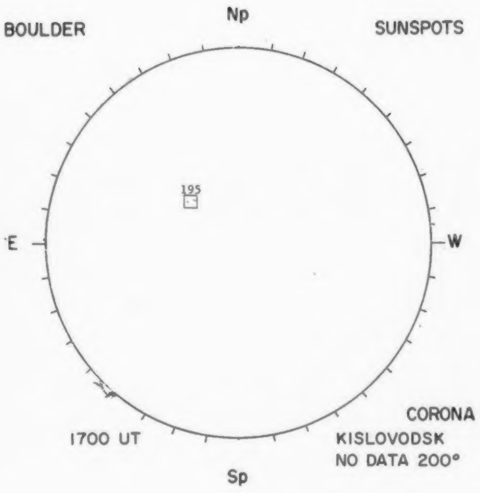
MAGNETOGRAM
Solid - Plus
Dotted - Minus

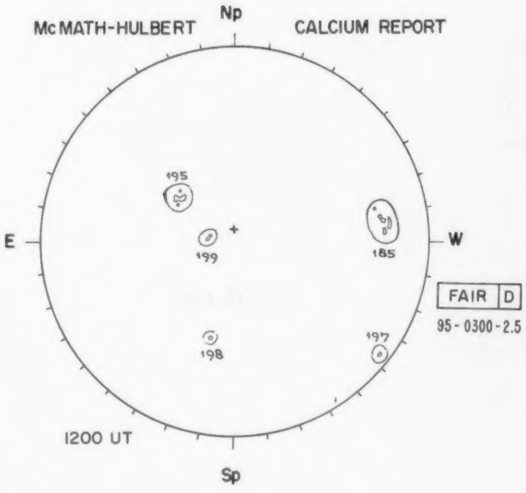
DELTAY =
DELTAX =

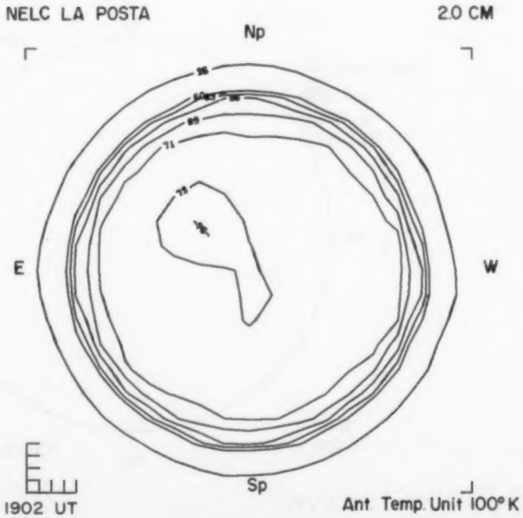


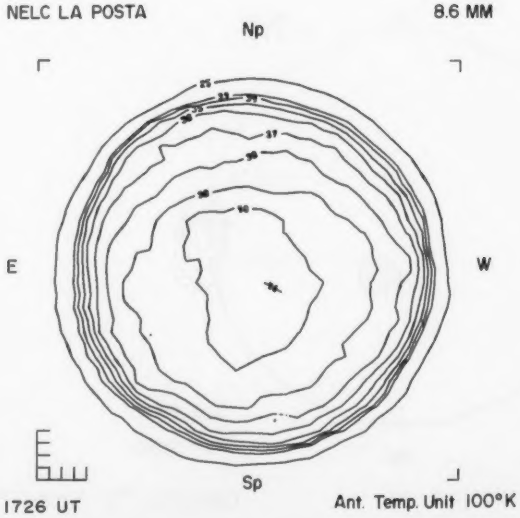
04


RAMEY AFB
Np
Hα
E
W
1140 UT
Sp

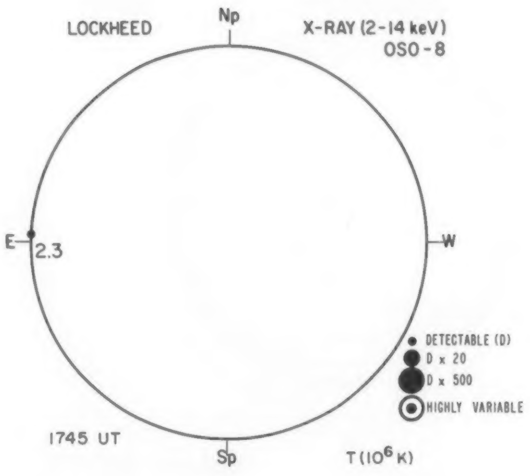

BOULDER
Np
SUNSPOTS
195
E
W
1700 UT
Sp
CORONA
KISLOVODSK
NO DATA 200°

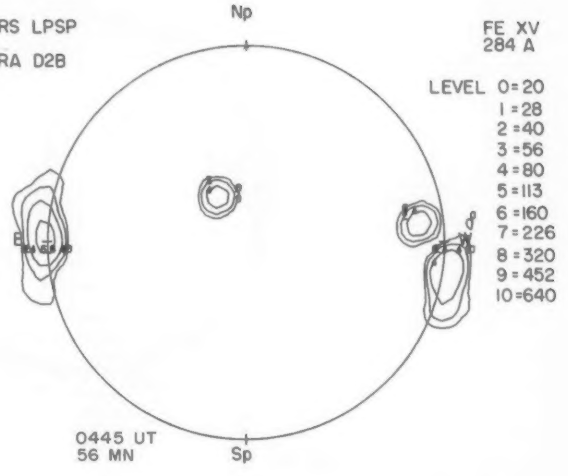

McMATH-HULBERT
Np
CALCIUM REPORT
195
185
199
E
W
198
197
1200 UT
Sp
FAIR D
95-0300-2.5

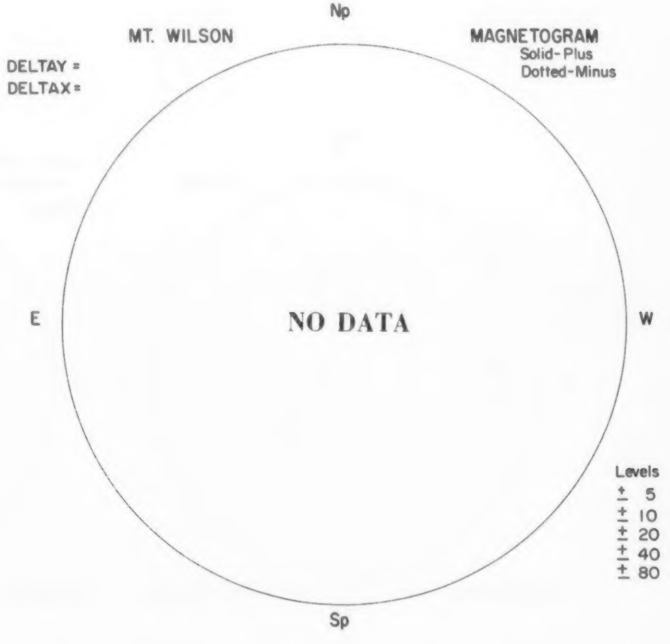

NELC LA POSTA
Np
2.0 CM
E
W
1902 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
E
W
1726 UT
Sp
Ant. Temp. Unit 100°K

MAY 5, 1976 ($P = -23.38$, $B_0 = -3.71$, $L_0 = 300.88$)

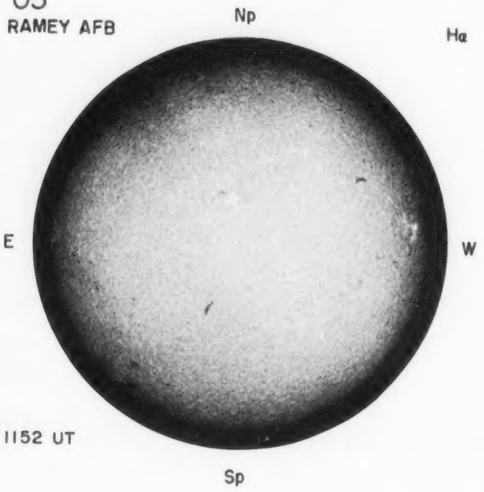






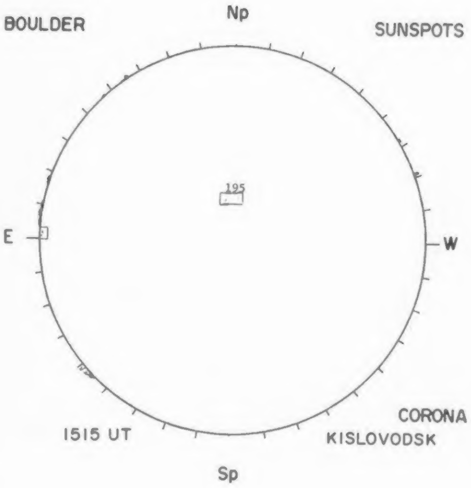
05
RAMEY AFB

Hα



1152 UT

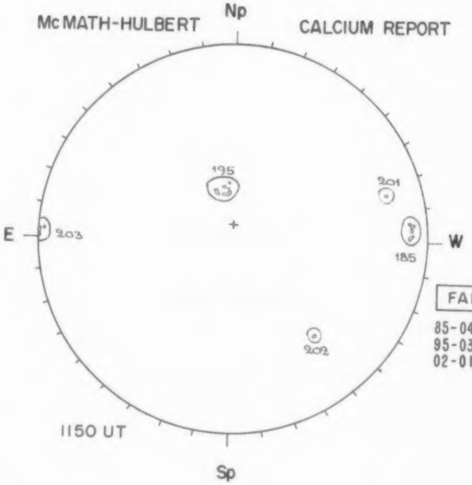
BOULDER — SUNSPOTS



1515 UT

CORONA
KISLOVODSK

McMATH-HULBERT — CALCIUM REPORT



1150 UT

FAIR	S

85-0400-2.5
95-0300-2.5
02-0100-2.5

NELC LA POSTA — 2.0 CM

Np

NO DATA

E — WEATHER — W

Sp

---- UT

Ant. Temp. Unit 100°K

NELC LA POSTA — 8.6 MM

Np

NO DATA

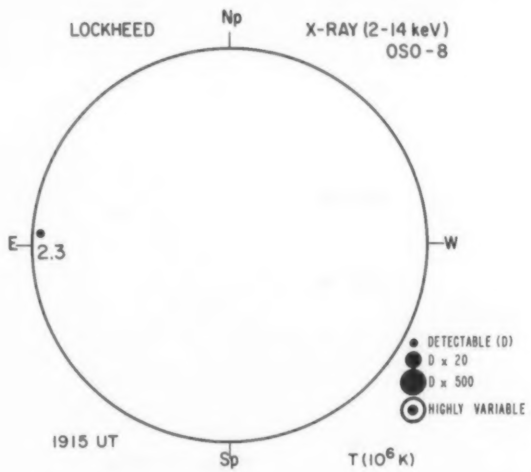
E — WEATHER — W

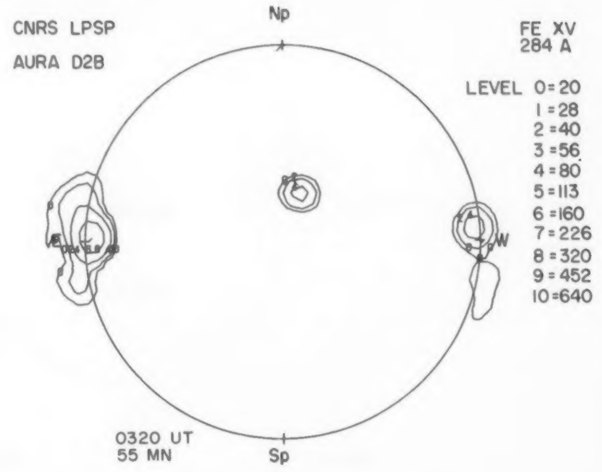
Sp

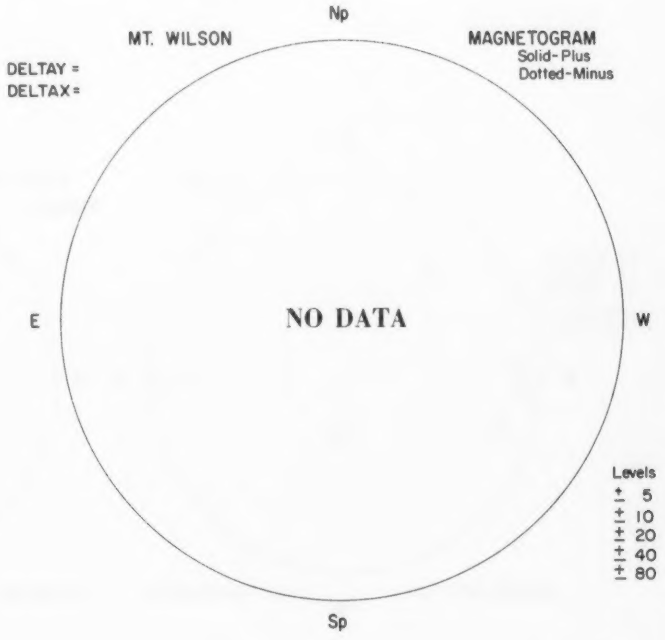
---- UT

Ant. Temp. Unit 100°K

MAY 6, 1976 (P =-23.17, B_o =-3.60, L_o =287.66)

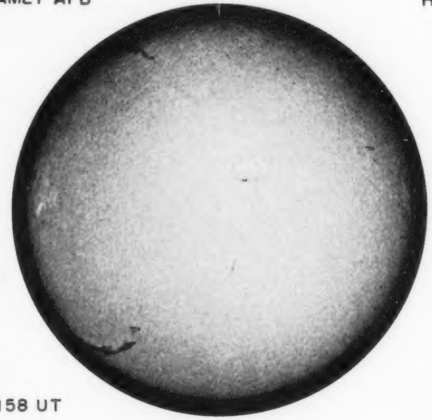






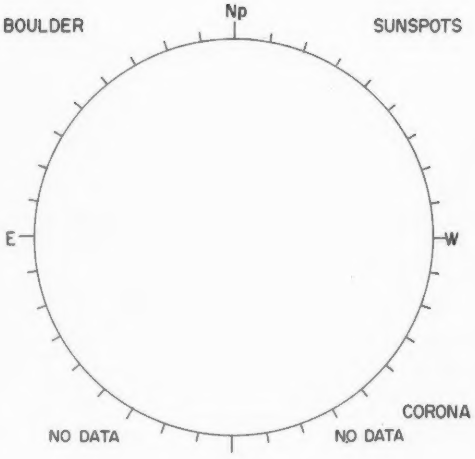
06

RAMEY AFB — Hα

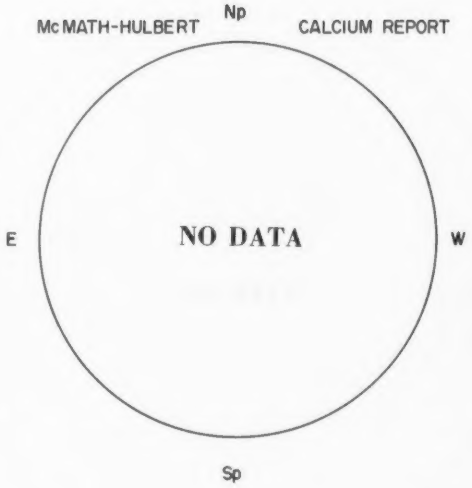


1158 UT

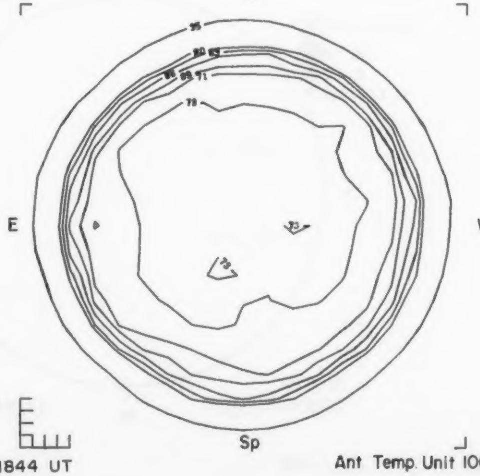
BOULDER — SUNSPOTS



McMATH-HULBERT — CALCIUM REPORT

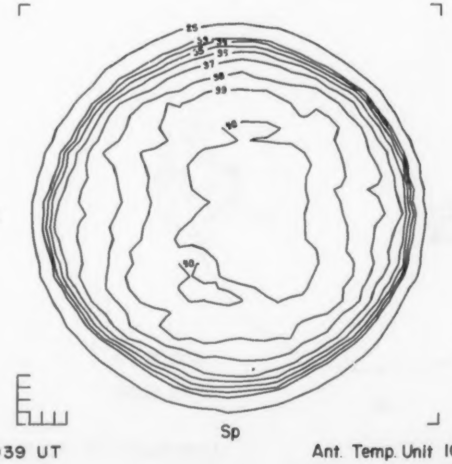


NELC LA POSTA — 2.0 CM



1844 UT — Ant. Temp. Unit 100°K

NELC LA POSTA — 8.6 MM

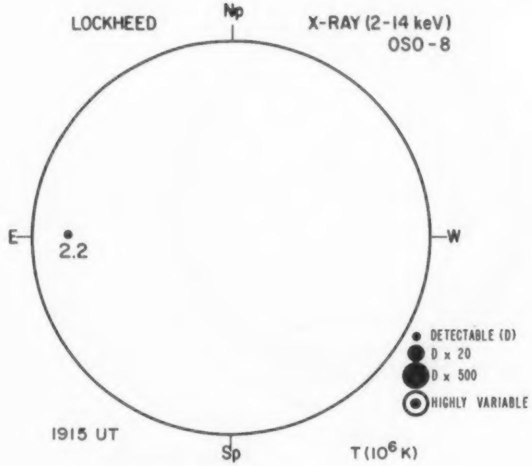


1939 UT — Ant. Temp. Unit 100°K

MAY 7, 1976 (P = -22.96, B_o = -3.49, L_o = 274.44)

LOCKHEED

X-RAY (2-14 keV)
OSO-8

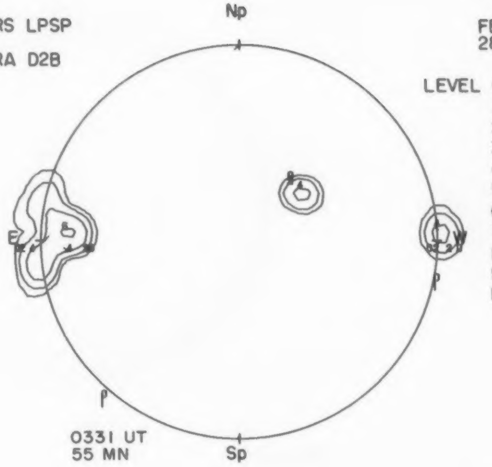


1915 UT

T (10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A



LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640

0331 UT
55 MN

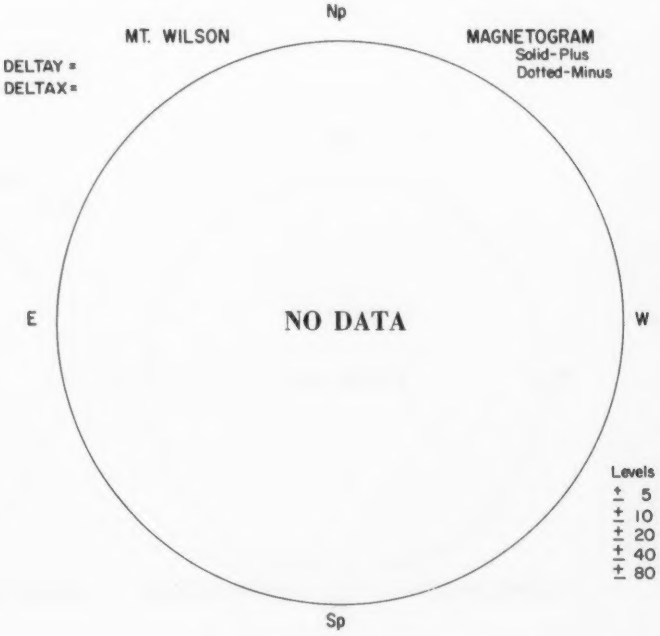
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

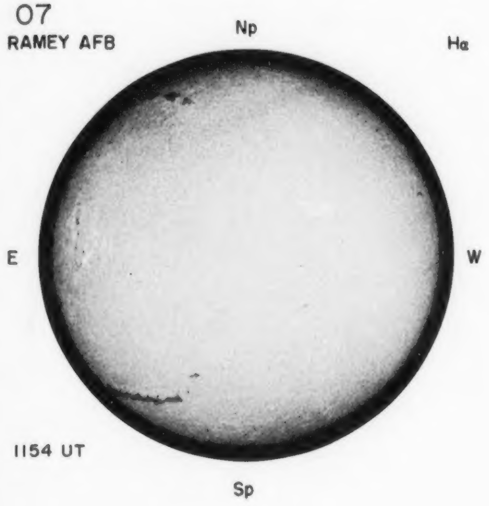
MAGNETOGRAM
Solid-Plus
Dotted-Minus

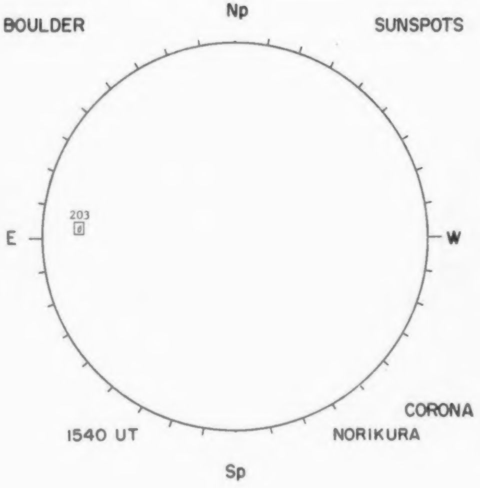
DELTAY =
DELTAX =

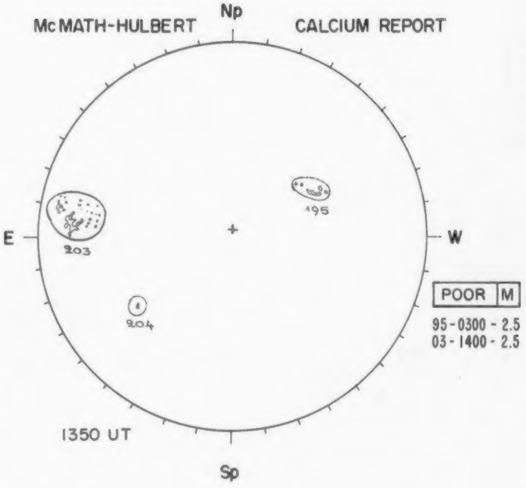


Levels
± 5
± 10
± 20
± 40
± 80

07







NELC LA POSTA

2.0 CM

Np

NO DATA

E WEATHER W

Sp

---- UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

NO DATA

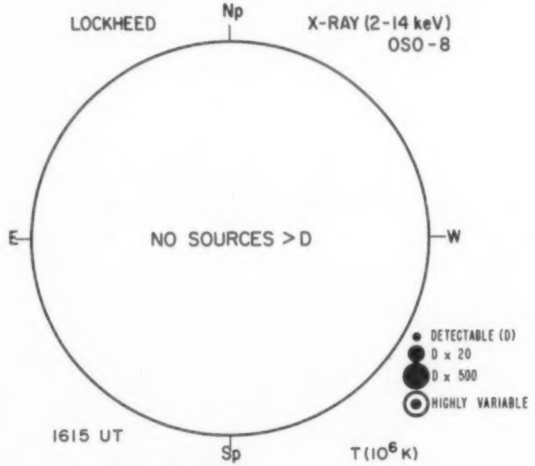
E WEATHER W

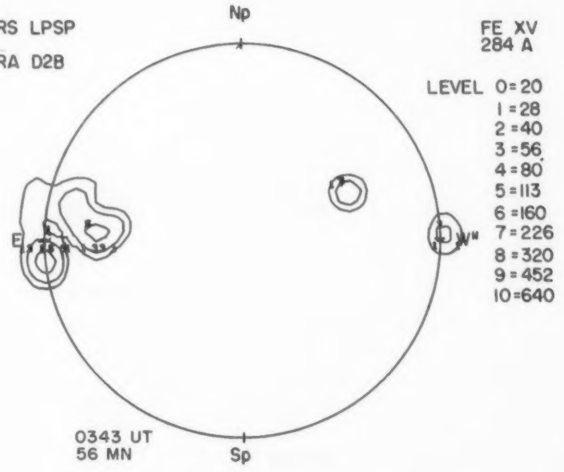
Sp

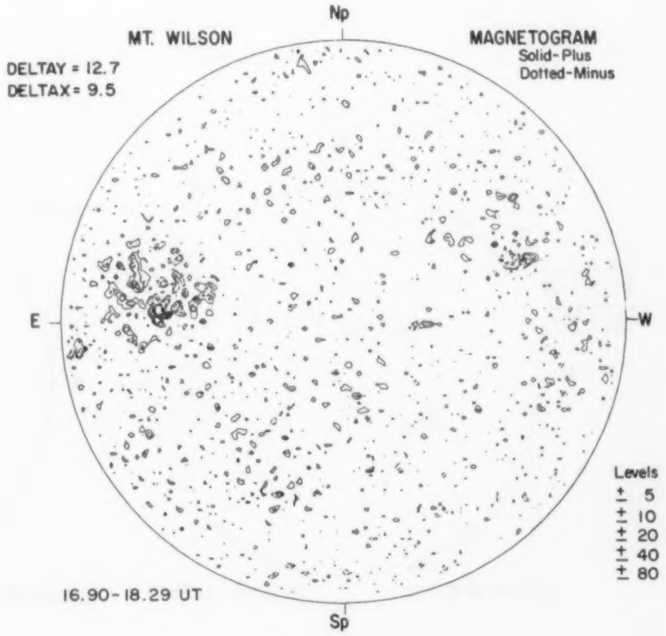
---- UT

Ant. Temp. Unit 100°K

MAY 8, 1976 $(P = -22.73,\ B_o = -3.39,\ L_o = 261.22)$

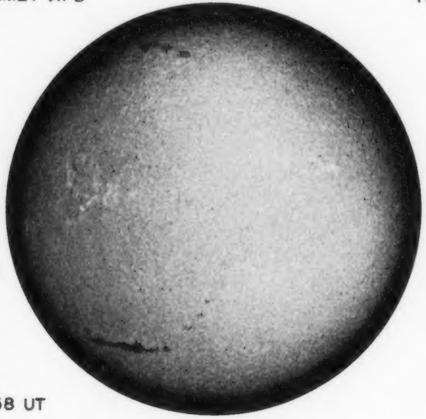




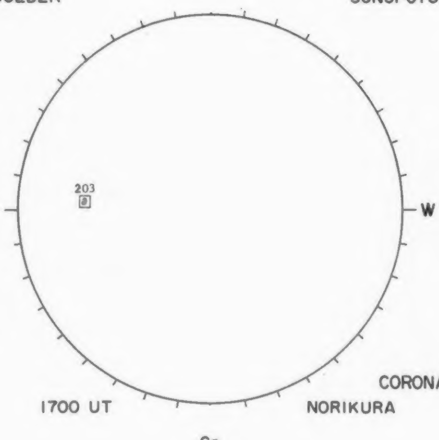


08

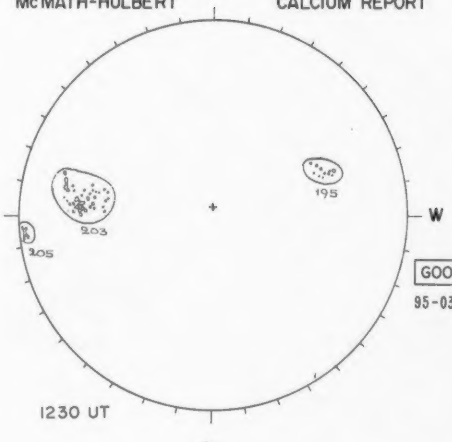
RAMEY AFB



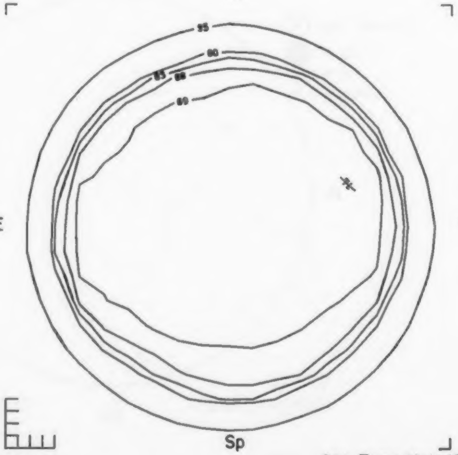
BOULDER



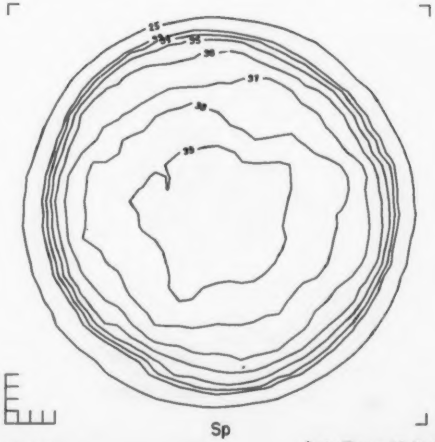
McMATH-HULBERT



NELC LA POSTA



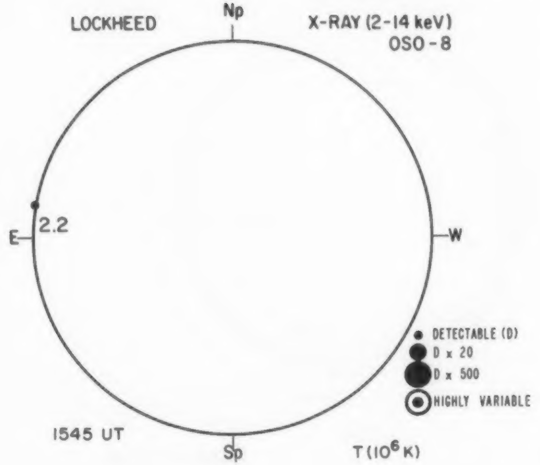
NELC LA POSTA



MAY 9, 1976 $(P = -22.50,\ B_0 = -3.28,\ L_0 = 247.99)$

LOCKHEED

X-RAY (2-14 keV)
OSO-8

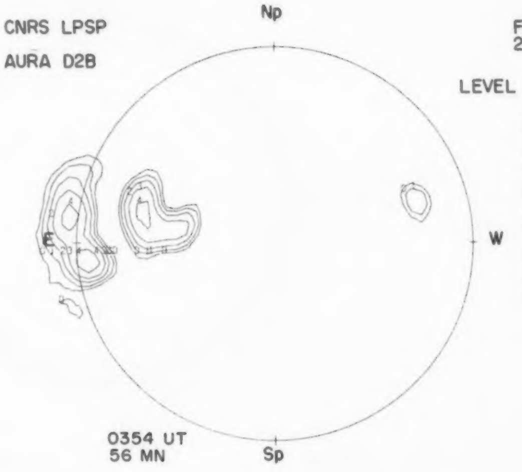


1545 UT

T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A



LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640

0354 UT
56 MN

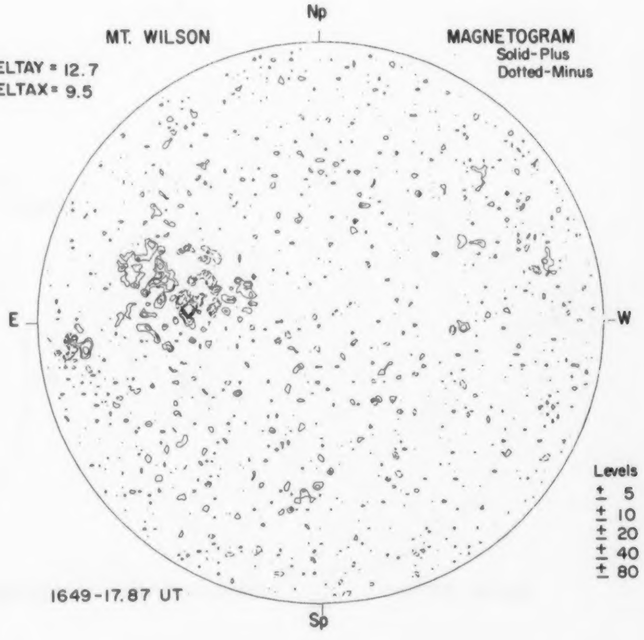
KITT PEAK

MAGNETOGRAM
Bright-Plus
Dark-Minus

MT. WILSON

MAGNETOGRAM
Solid-Plus
Dotted-Minus

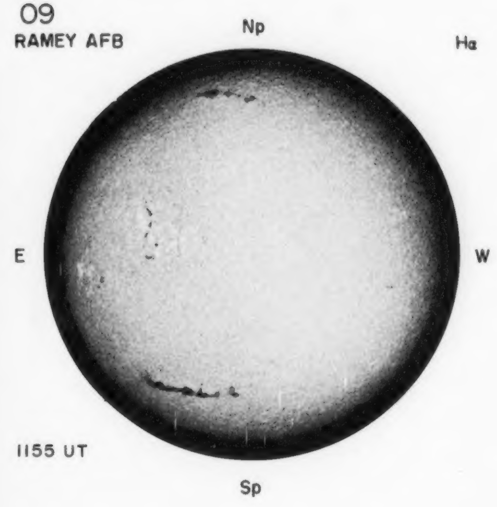
DELTAY = 12.7
DELTAX = 9.5

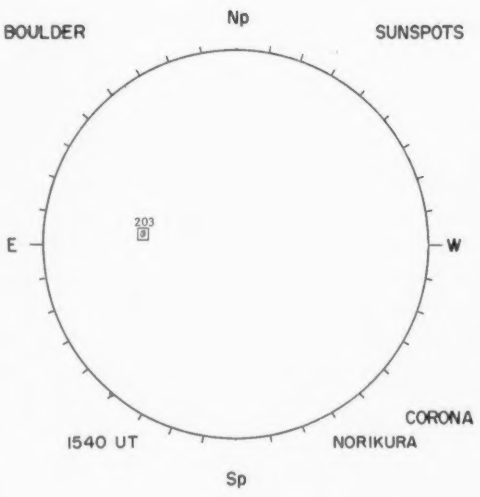


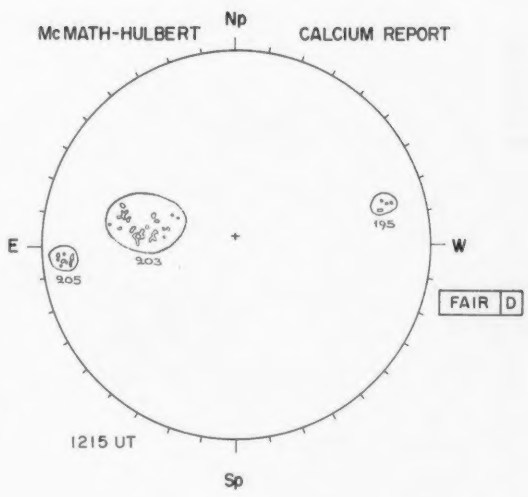
Levels
± 5
± 10
± 20
± 40
± 80

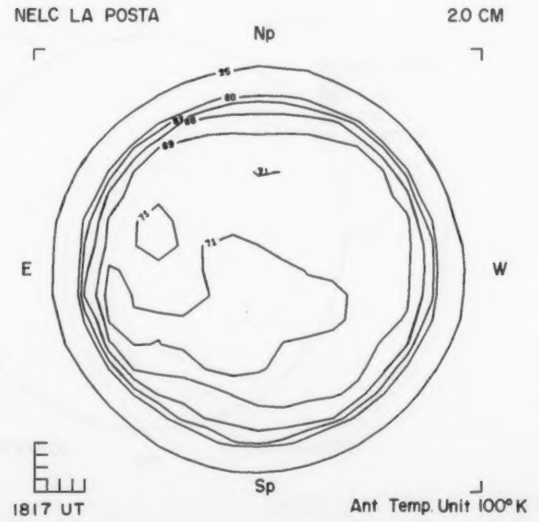
1649-17.87 UT

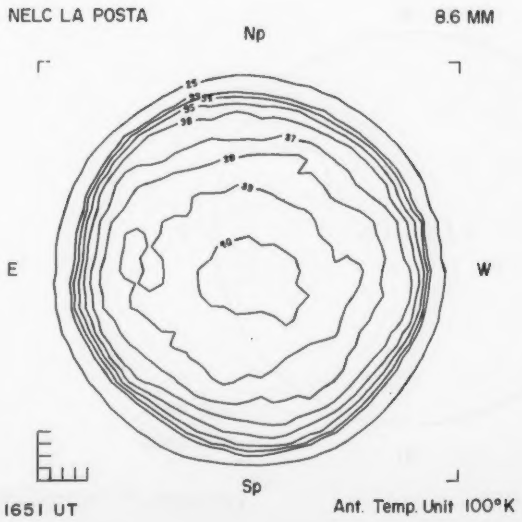
09


RAMEY AFB
Np
E
W
Sp
1155 UT


Hα
BOULDER
SUNSPOTS
Np
E
W
Sp
203
1540 UT
CORONA
NORIKURA

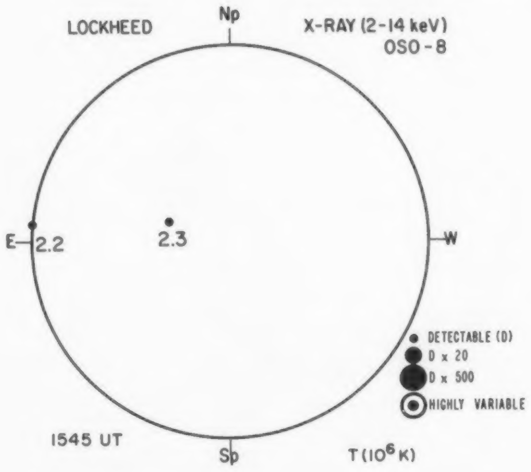

McMATH-HULBERT
CALCIUM REPORT
Np
E
W
Sp
205
203
195
1215 UT
FAIR D


NELC LA POSTA
2.0 CM
Np
E
W
Sp
1817 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1651 UT
Ant. Temp. Unit 100°K

MAY 10, 1976 (P = -22.26, B_0 = -3.17, L_0 = 234.77)

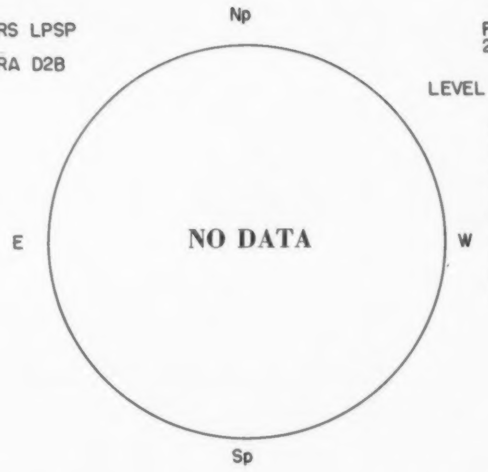
LOCKHEED X-RAY (2-14 keV) OSO-8



1545 UT T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A

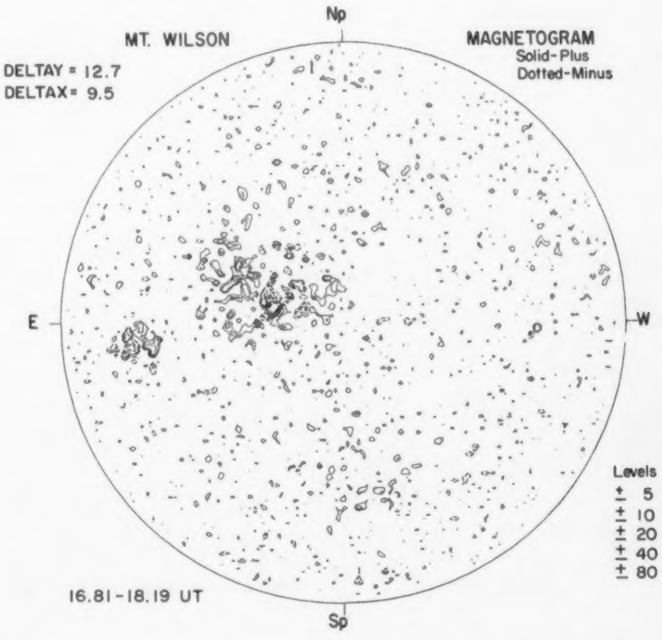


LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640

KITT PEAK MAGNETOGRAM Bright- Plus Dark - Minus

MT. WILSON MAGNETOGRAM Solid-Plus Dotted-Minus

DELTAY = 12.7
DELTAX = 9.5



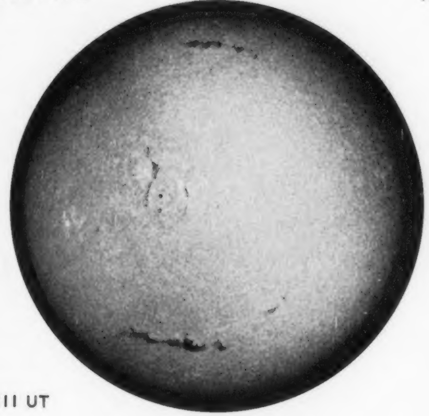
Levels
± 5
± 10
± 20
± 40
± 80

16.81-18.19 UT

10

RAMEY AFB

Np

E  W

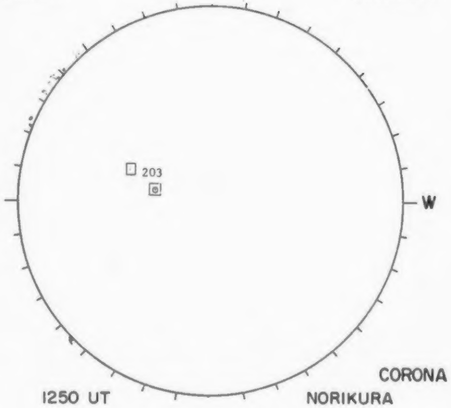
1211 UT

Sp

Hα BOULDER

Np

SUNSPOTS

E  W

1250 UT

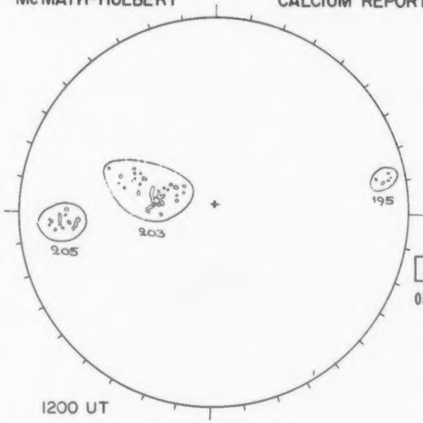
CORONA
NORIKURA

Sp

McMATH-HULBERT

Np

CALCIUM REPORT

E  W

FAIR | D

05-0700-2.5

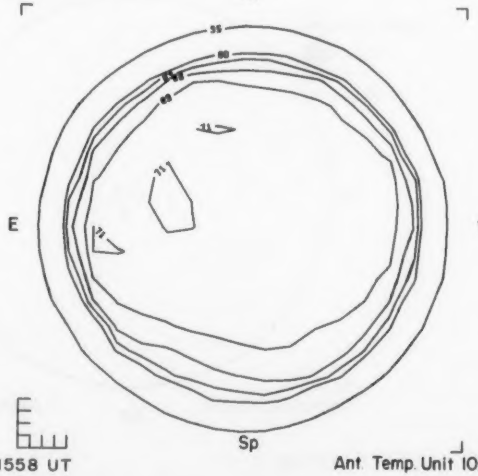
1200 UT

Sp

NELC LA POSTA

2.0 CM

Np

E  W

Sp

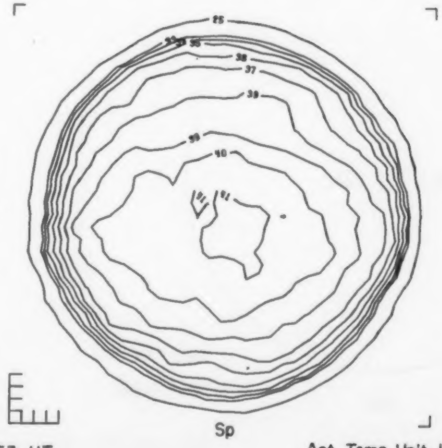
1558 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

E  W

Sp

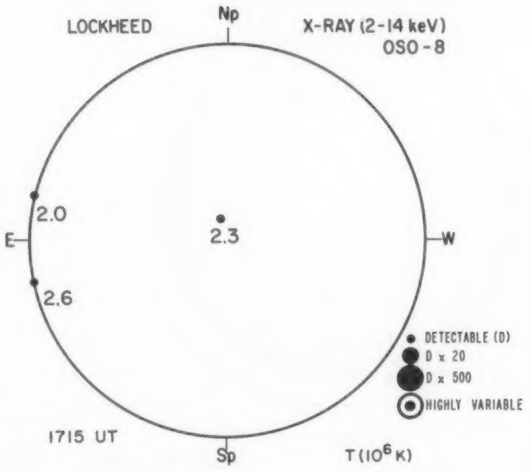
1653 UT

Ant. Temp. Unit 100°K

MAY 11, 1976 (P = -22.02, B_0 = -3.06, L_0 = 221.55)

LOCKHEED

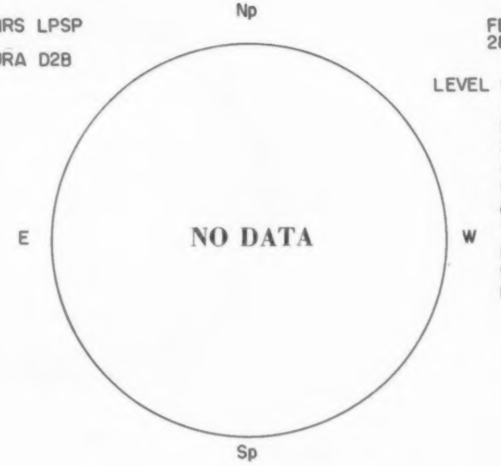
X-RAY (2-14 keV)
OSO-8



1715 UT

CNRS LPSP
AURA D2B

FE XV
284 A



LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640

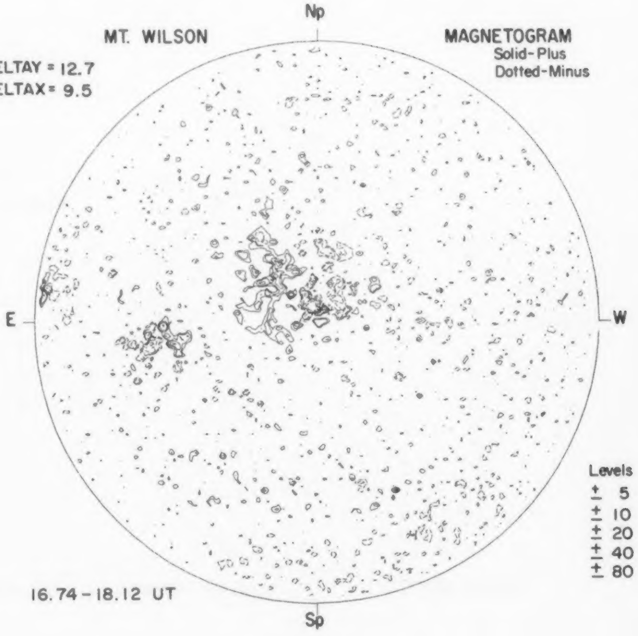
KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

MT. WILSON

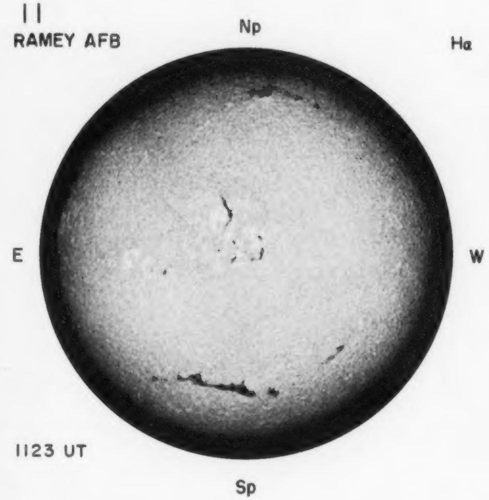
MAGNETOGRAM
Solid-Plus
Dotted-Minus

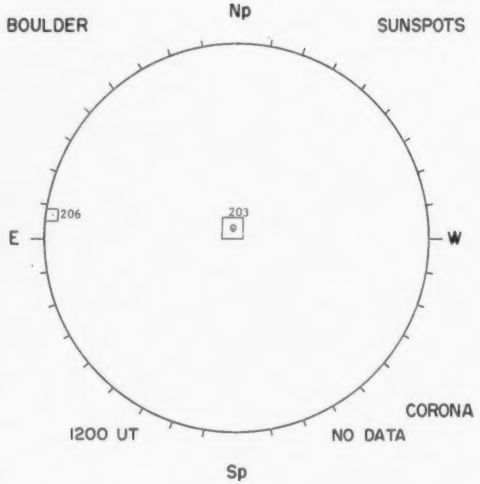
DELTAY = 12.7
DELTAX = 9.5

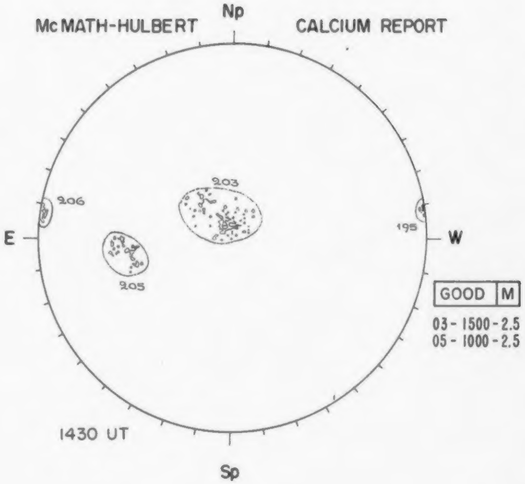


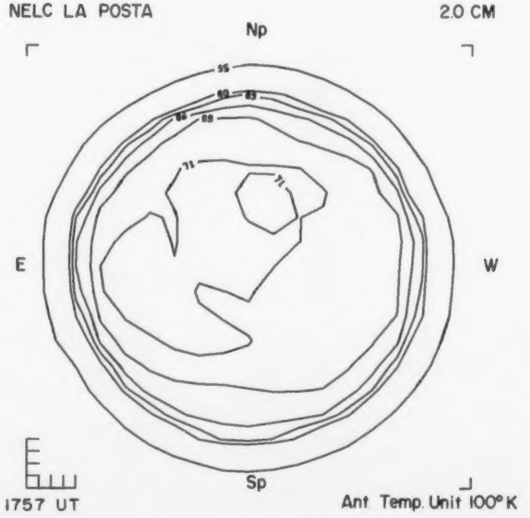
Levels
± 5
± 10
± 20
± 40
± 80

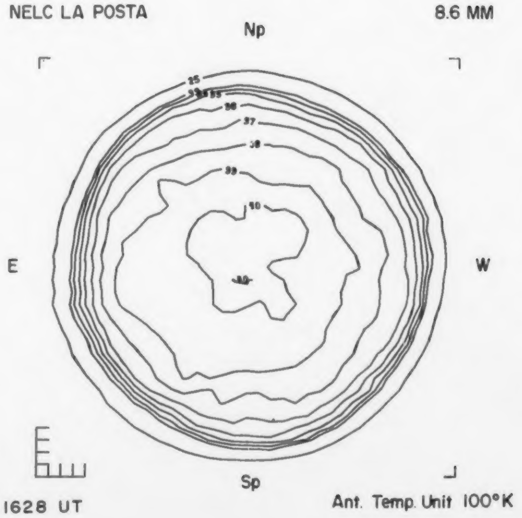
16.74 - 18.12 UT


11
RAMEY AFB
Np
Hα
E
W
Sp
1123 UT

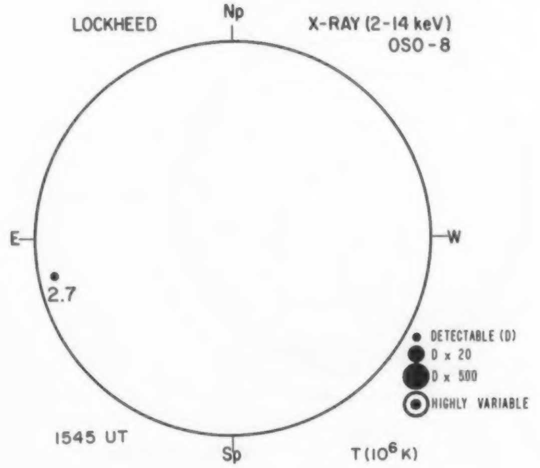

BOULDER
Np
SUNSPOTS
E
W
206
203
Sp
1200 UT
CORONA
NO DATA

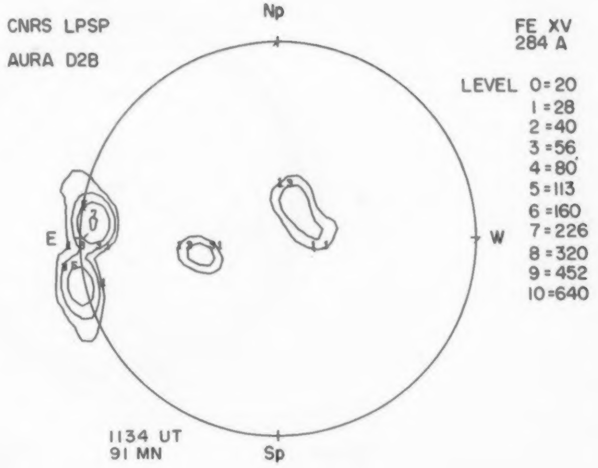

McMATH-HULBERT
Np
CALCIUM REPORT
E
W
206
203
205
195
Sp
1430 UT
GOOD
M
03 - 1500 - 2.5
05 - 1000 - 2.5

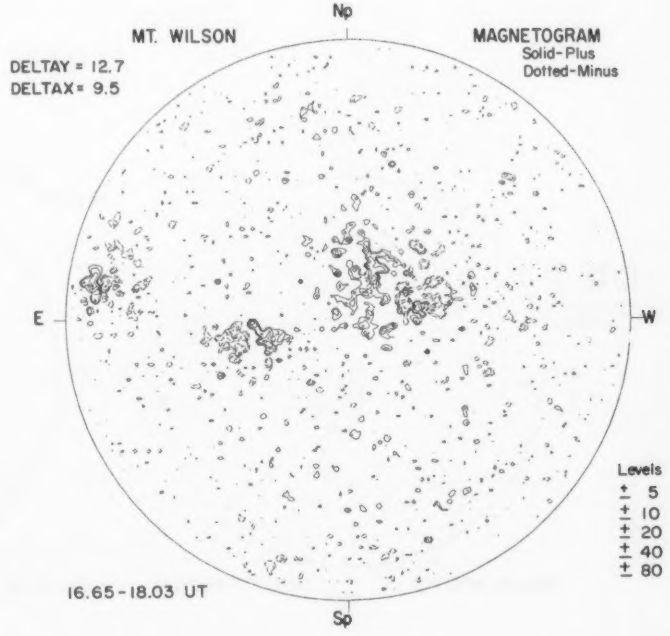

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1757 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1628 UT
Ant. Temp. Unit 100°K

MAY 12, 1976 (P = -21.76, B_o = -2.95, L_o = 208.32)

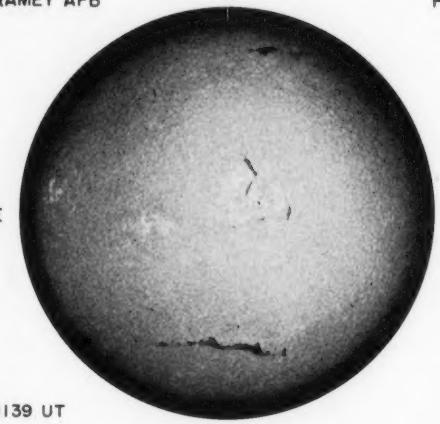






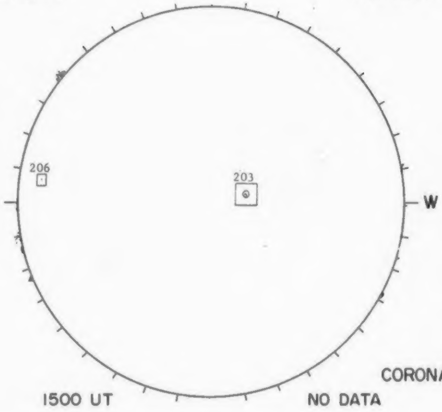
12

RAMEY AFB



1139 UT

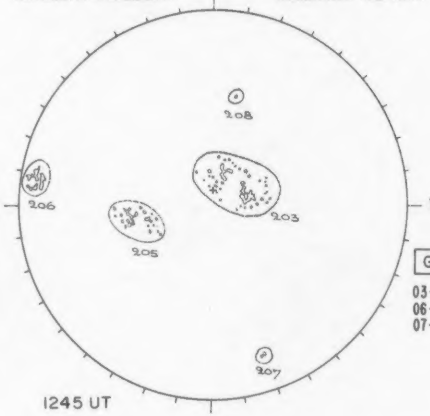
Hα BOULDER SUNSPOTS



1500 UT

CORONA
NO DATA

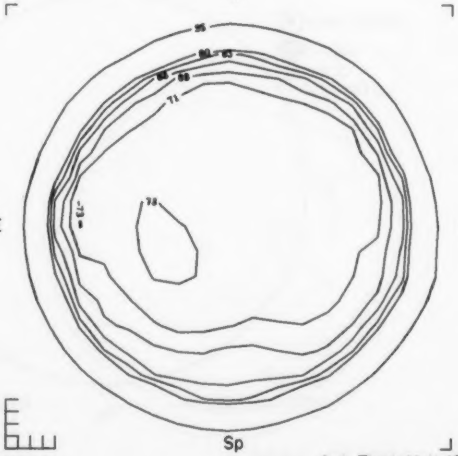
McMATH-HULBERT CALCIUM REPORT



GOOD S
03-1300-2.5
06-1700-2.5
07-0100-2.5

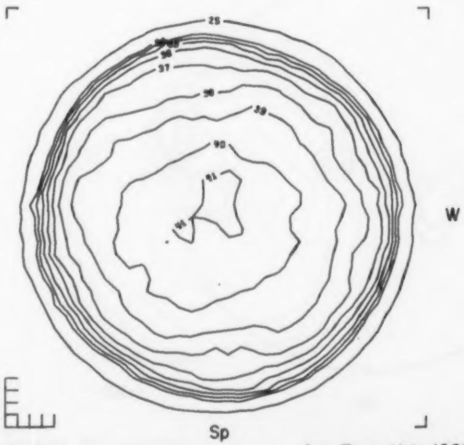
1245 UT

NELC LA POSTA 2.0 CM



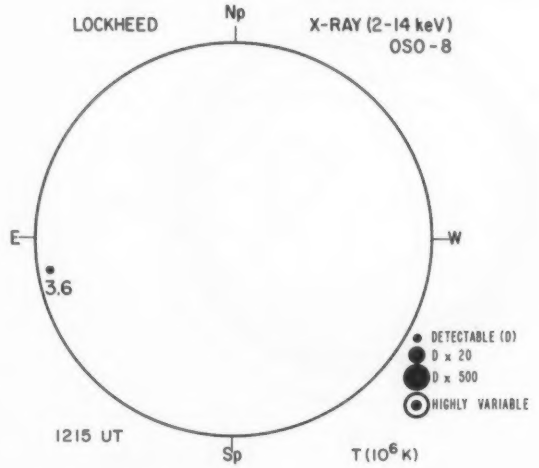
1552 UT Ant. Temp. Unit 100°K

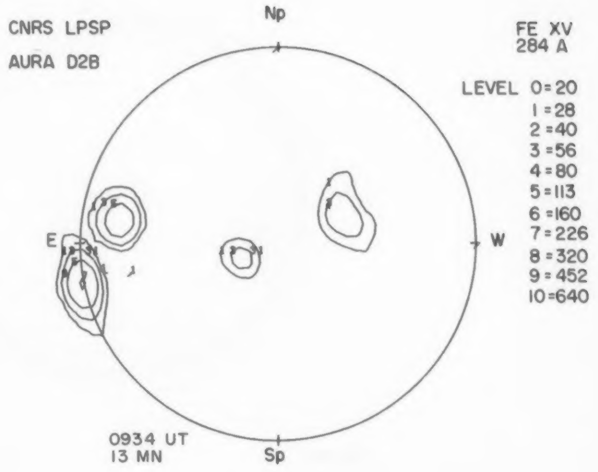
NELC LA POSTA 8.6 MM

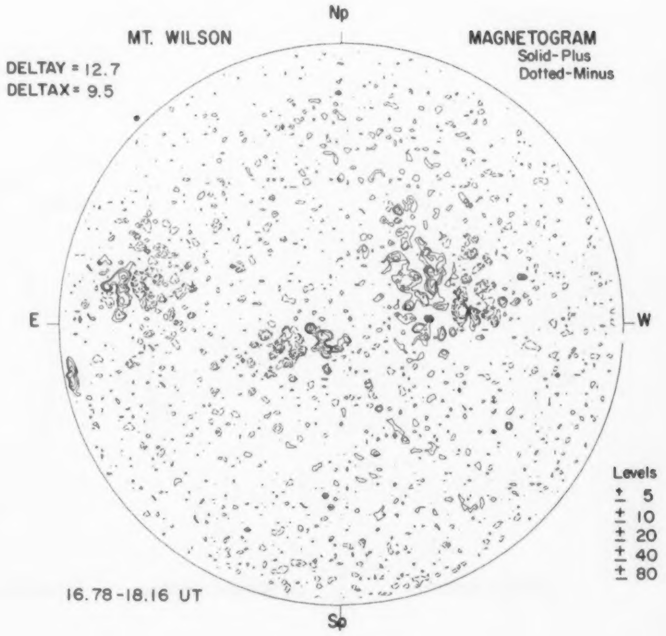


1653 UT Ant. Temp. Unit 100°K

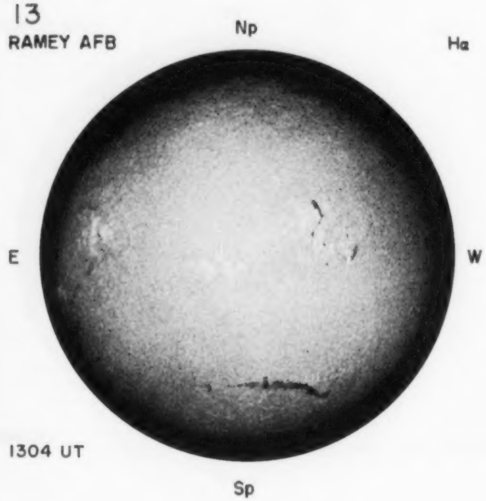
MAY 13, 1976 (P = -21.51, B_o = -2.83, L_o = 195.10)

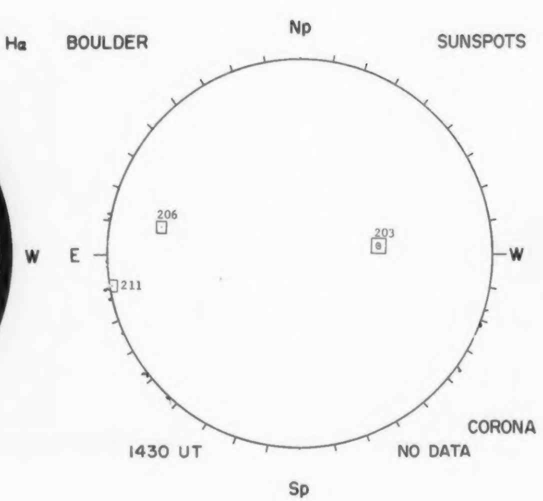


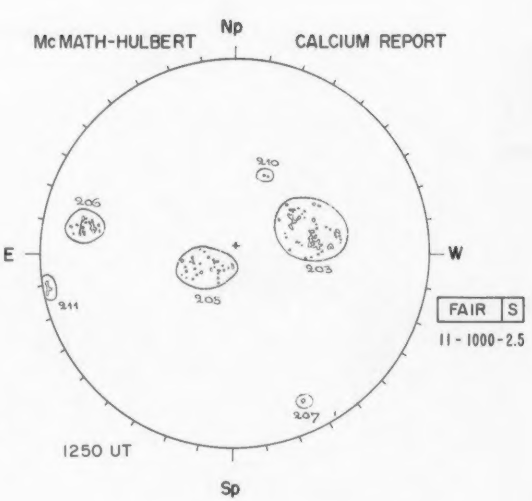


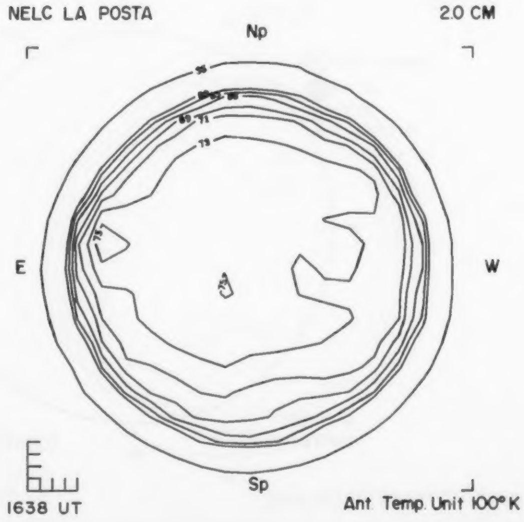


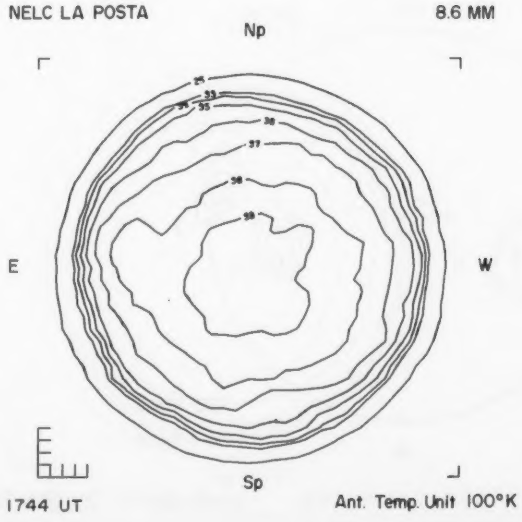
13


RAMEY AFB
Np
E
W
Sp
1304 UT

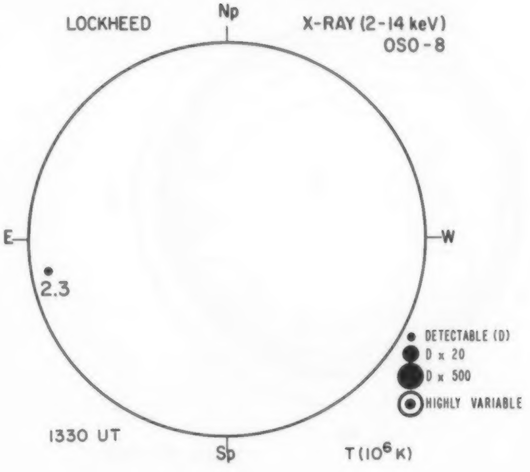

Hα BOULDER
Np
SUNSPOTS
E
W
206
211
203
CORONA
NO DATA
1430 UT
Sp

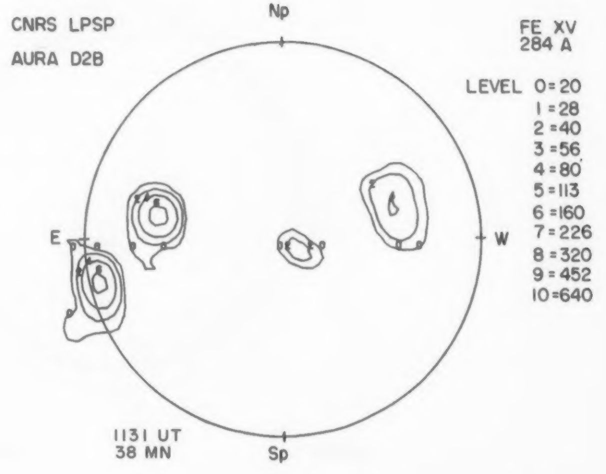

McMATH-HULBERT
Np
CALCIUM REPORT
E
W
206
210
203
205
211
207
FAIR S
11-1000-2.5
1250 UT
Sp

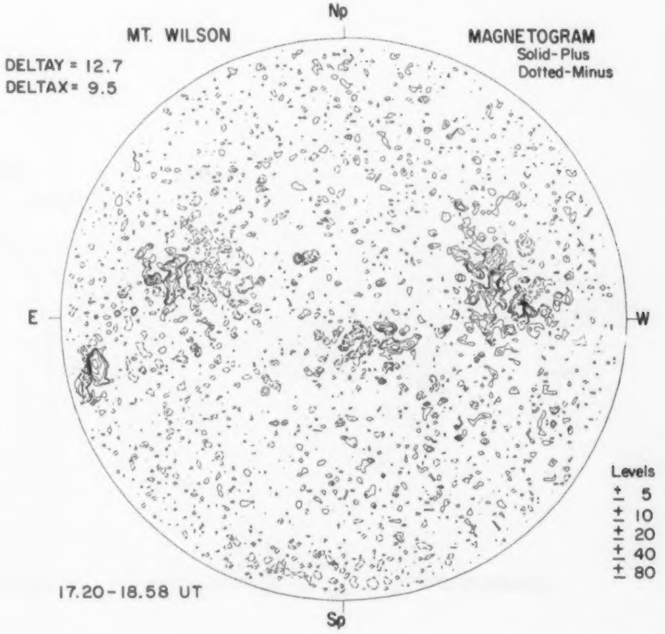

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1638 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1744 UT
Ant. Temp. Unit 100°K

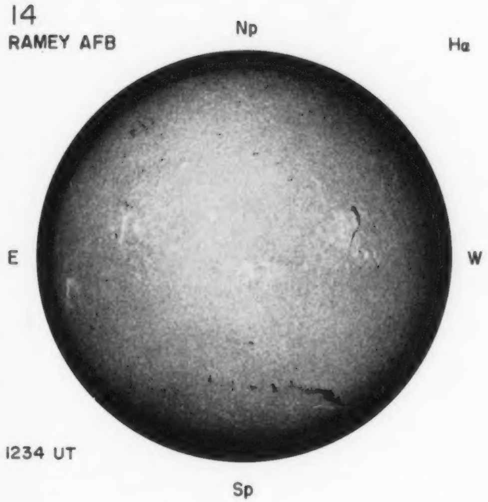
MAY 14, 1976 (P =-21.24, B_o =-2.72, L_o = 181.87)

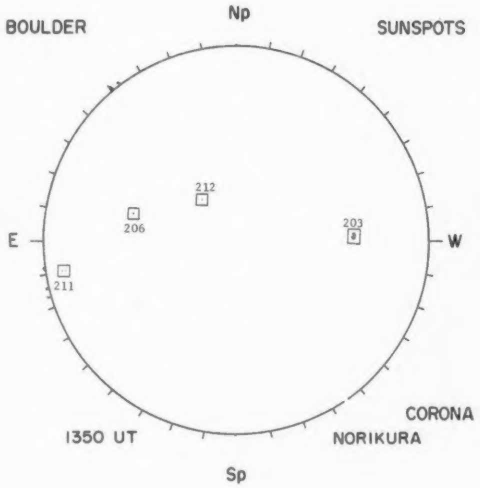


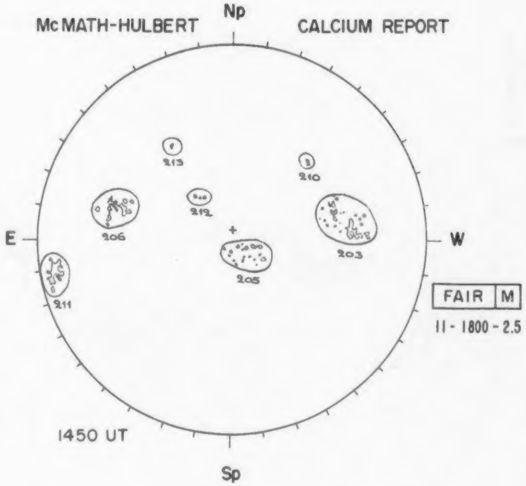


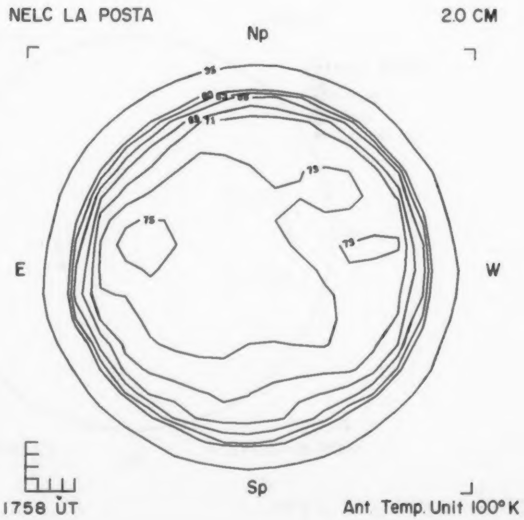


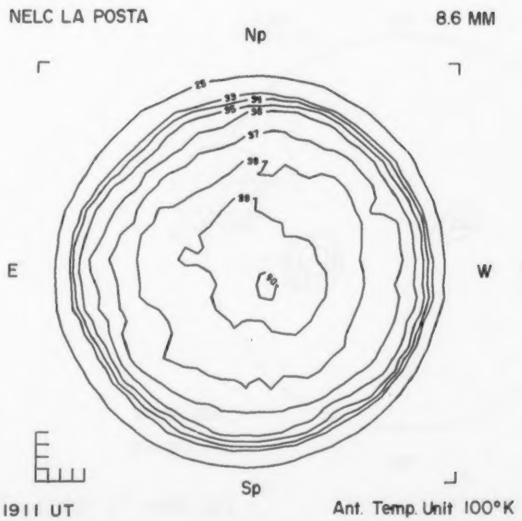
14


RAMEY AFB
Np
Hα
E
W
1234 UT
Sp

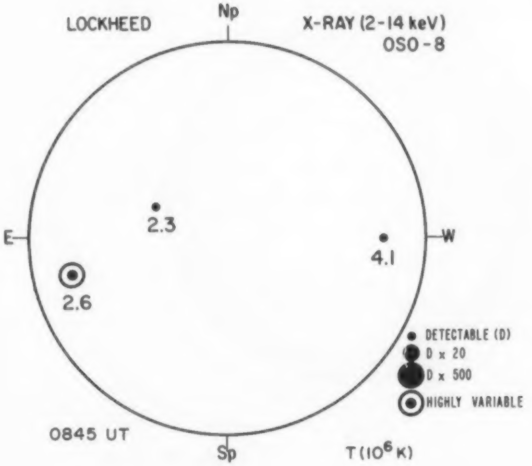

BOULDER
SUNSPOTS
Np
E
W
212
206
203
211
1350 UT
CORONA
NORIKURA
Sp

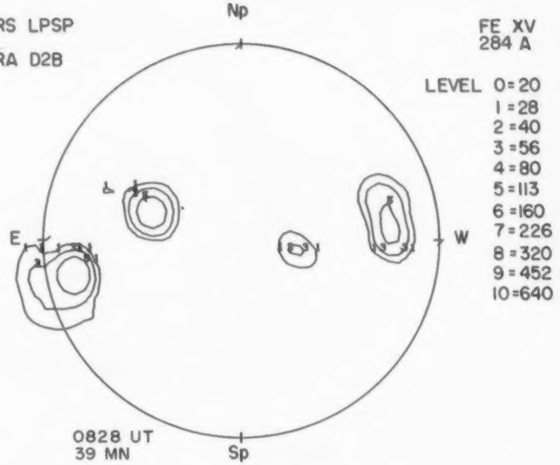

McMATH-HULBERT
CALCIUM REPORT
Np
E
W
213
210
212
206
203
205
211
FAIR
M
11 - 1800 - 2.5
1450 UT
Sp

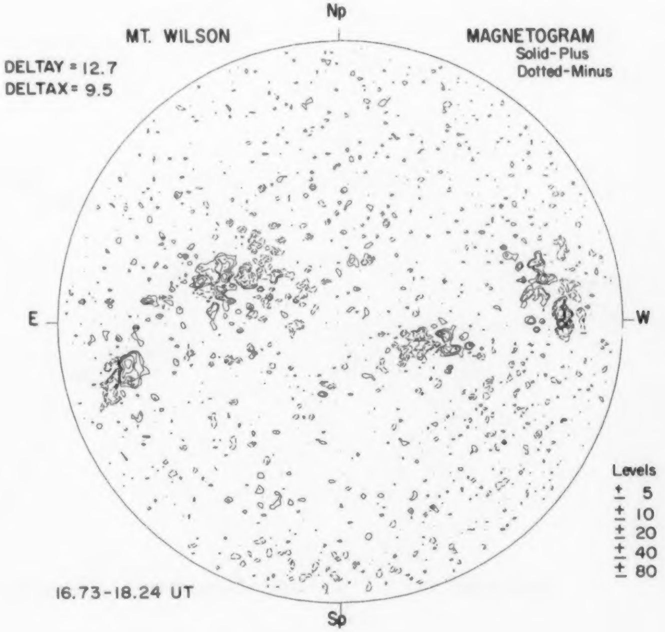

NELC LA POSTA
2.0 CM
Np
E
W
75
73
Sp
1758 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1911 UT
Ant. Temp. Unit 100°K

MAY 15, 1976 ($P = -20.97$, $B_0 = -2.61$, $L_0 = 168.65$)





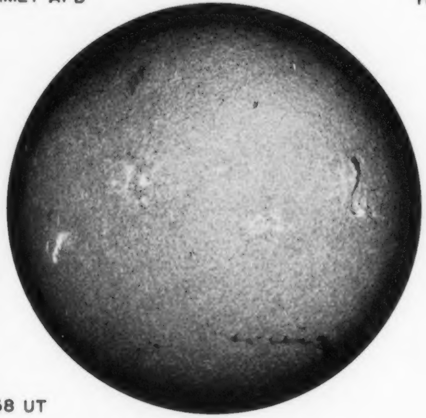


15

RAMEY AFB

Np

Hα

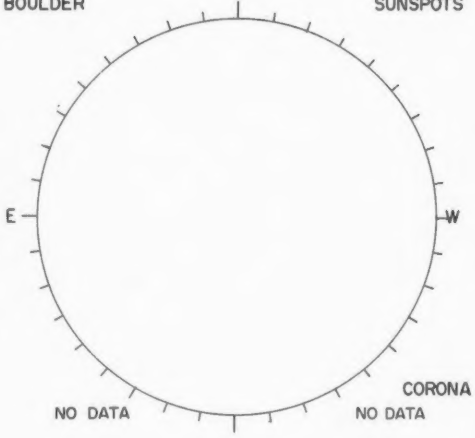
E  W

1138 UT

Sp

BOULDER SUNSPOTS

Np



Sp

McMATH-HULBERT CALCIUM REPORT

Np

Sp

NELC LA POSTA 2.0 CM

Np

NO DATA

E EQUIPMENT W

Sp

---- UT

Ant. Temp. Unit 100°K

NELC LA POSTA 8.6 MM

Np

NO DATA

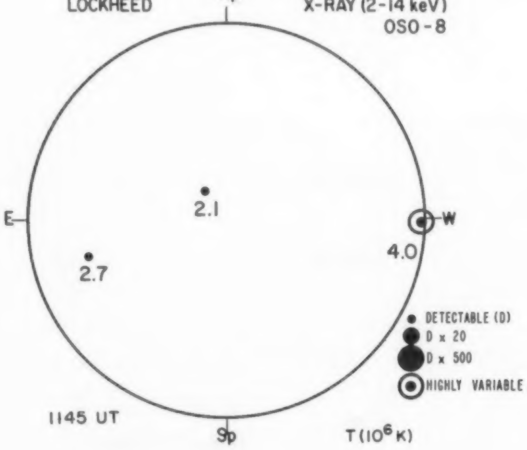
E EQUIPMENT W

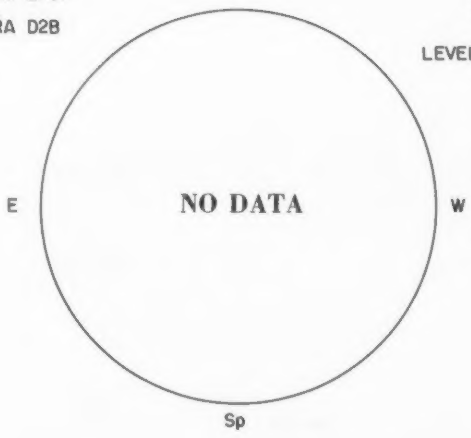
Sp

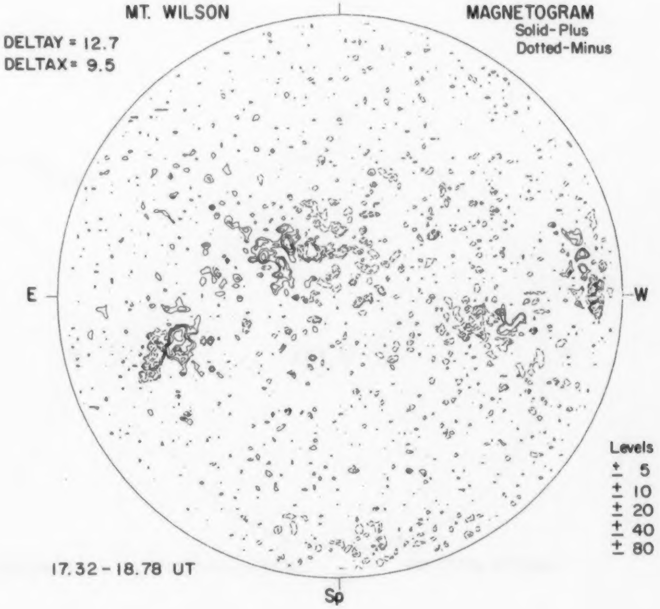
---- UT

Ant. Temp. Unit 100°K

MAY 16, 1976 (P = -20.69, B_o = -2.50, L_o = 155.42)

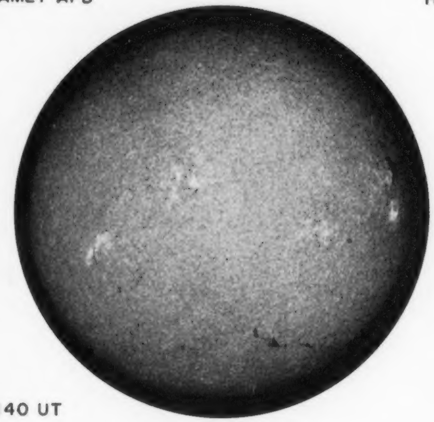






16

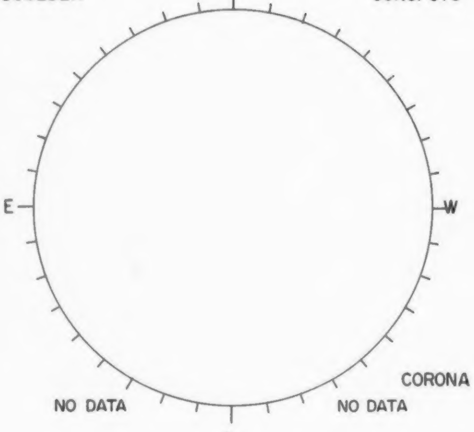
RAMEY AFB | Np | Hα



E | W

1140 UT | Sp

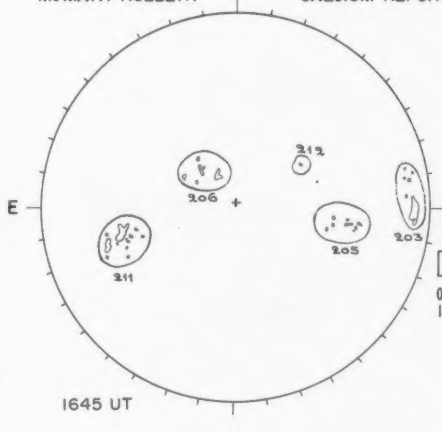
BOULDER | Np | SUNSPOTS



E | W

NO DATA | Sp | CORONA NO DATA

McMATH-HULBERT | Np | CALCIUM REPORT



E | W

GOOD | S

03 - 1500 - 3.5
11 - 1400 - 3.0

1645 UT | Sp

NELC LA POSTA | Np | 2.0 CM

NO DATA

E | EQUIPMENT | W

---- UT | Sp | Ant. Temp. Unit 100°K

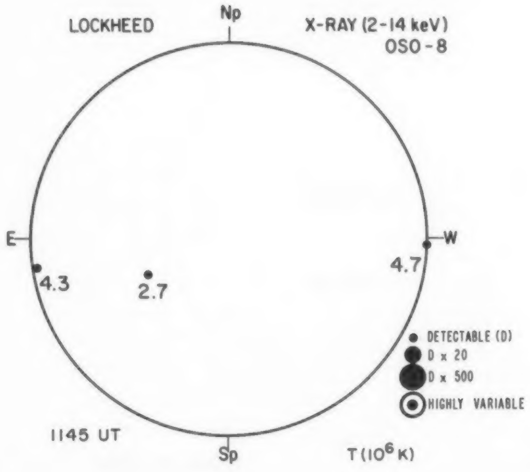
NELC LA POSTA | Np | 8.6 MM

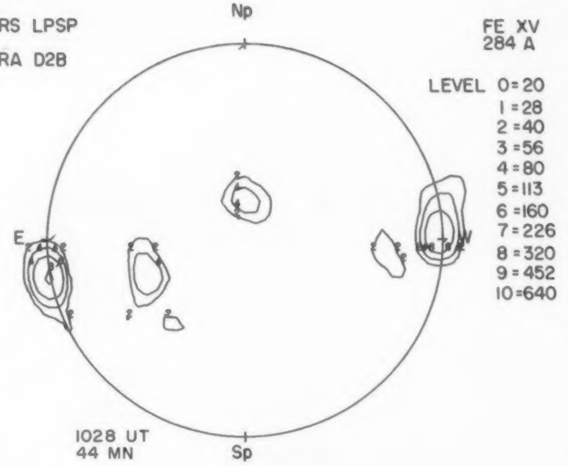
NO DATA

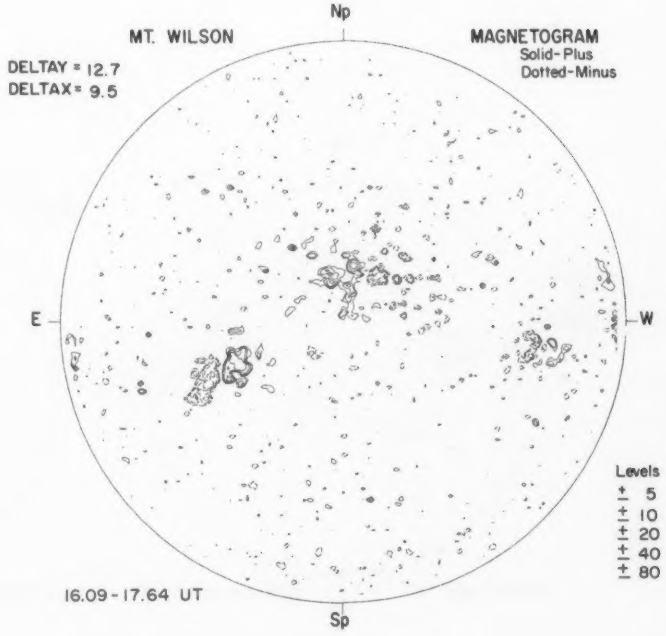
E | EQUIPMENT | W

----. UT | Sp | Ant. Temp. Unit 100°K

MAY 17, 1976 $(P = -20.41,\ B_0 = -2.38,\ L_0 = 142.19)$

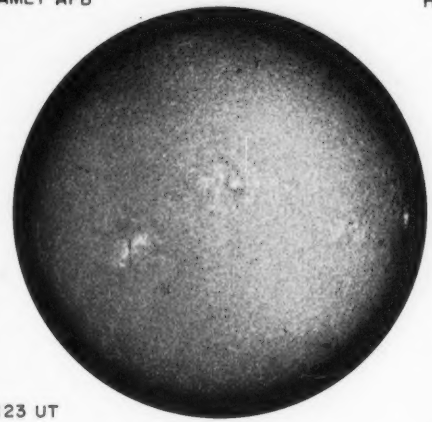






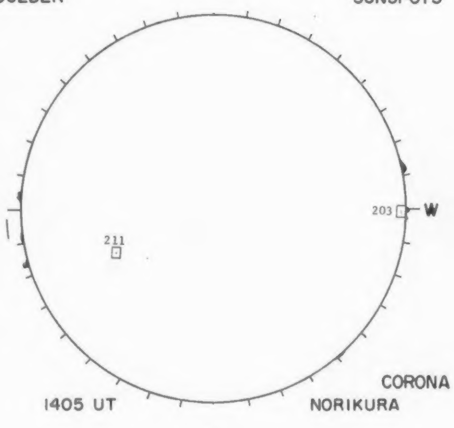
17

RAMEY AFB — Hα



1123 UT

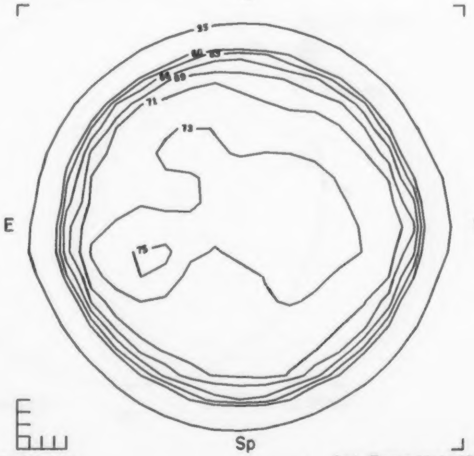
BOULDER — SUNSPOTS



1405 UT

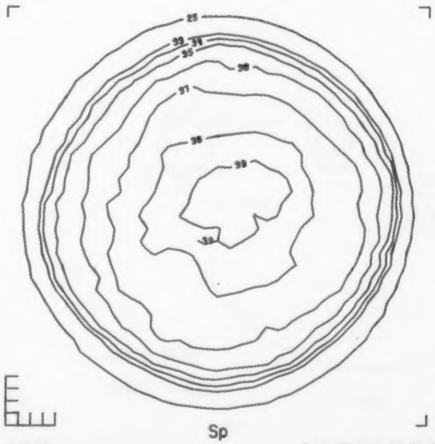
McMATH-HULBERT — CALCIUM REPORT

NELC LA POSTA — 2.0 CM



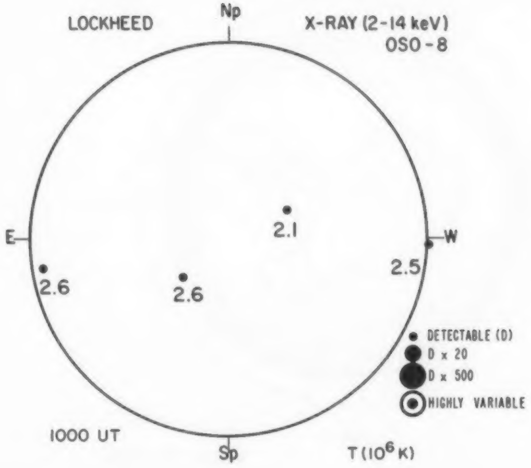
2108 UT — Ant. Temp. Unit 100°K

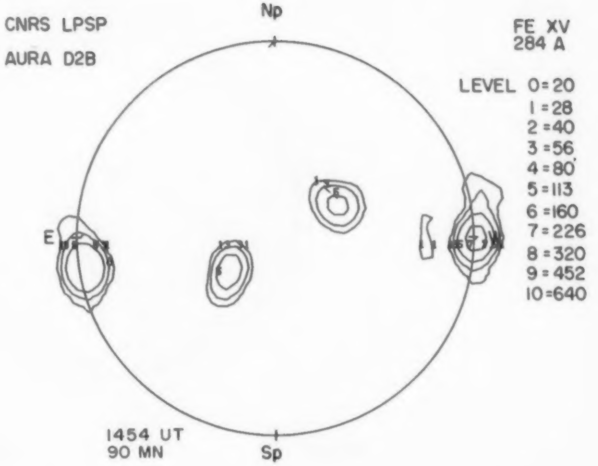
NELC LA POSTA — 8.6 MM

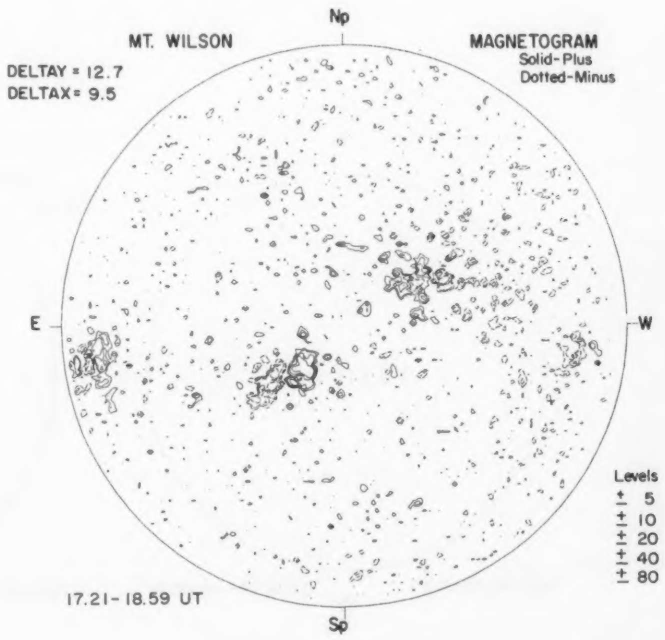


1947 UT — Ant. Temp. Unit 100°K

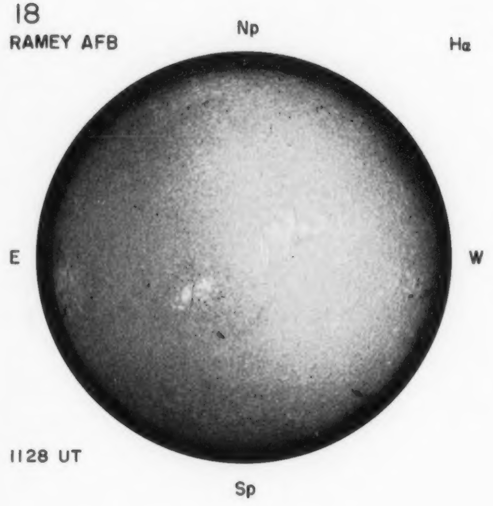
MAY 18, 1976 (P =-20.11, B_o =-2.27, L_o =128.97)

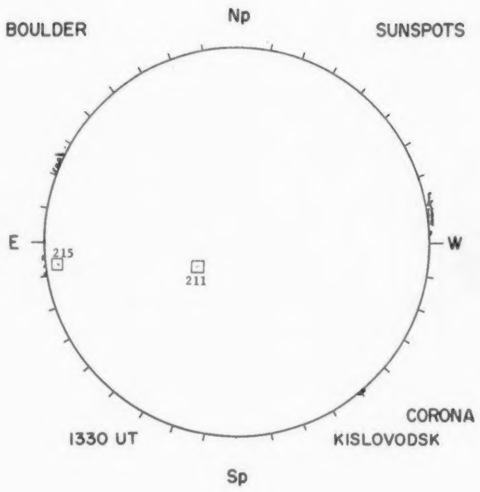


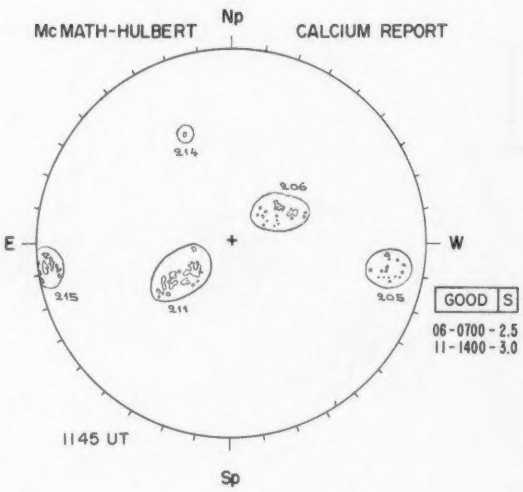


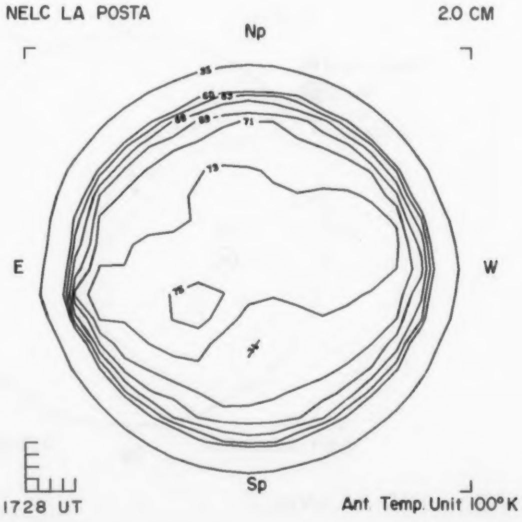


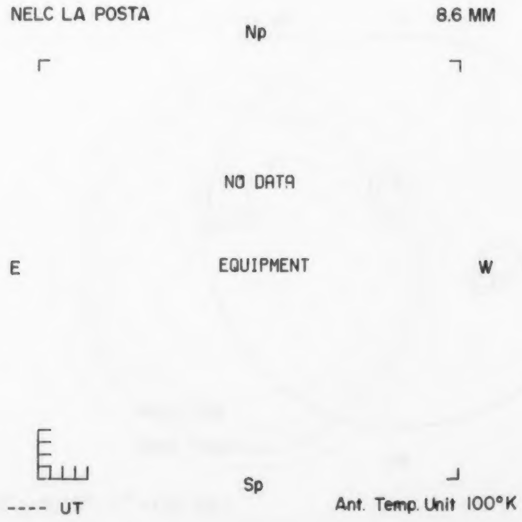
18


RAMEY AFB
Np
Hα
E
W
1128 UT
Sp

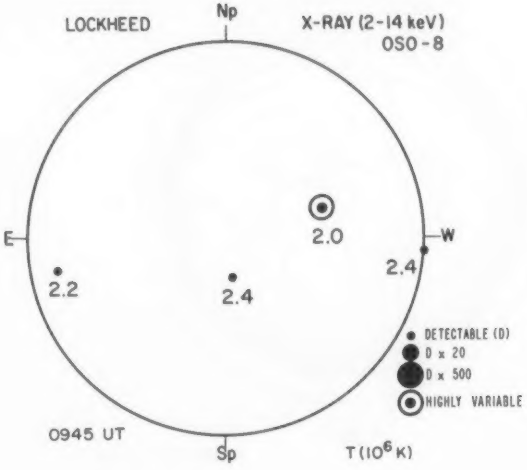

BOULDER
Np
SUNSPOTS
E
W
215
211
1330 UT
Sp
CORONA
KISLOVODSK

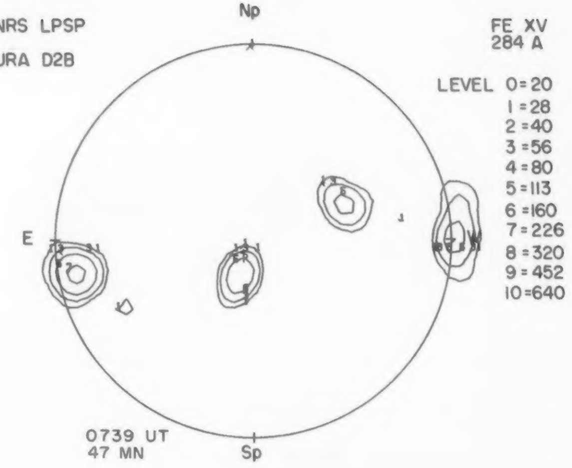

McMATH-HULBERT
Np
CALCIUM REPORT
E
W
214
206
215
211
205
GOOD S
06-0700-2.5
11-1400-3.0
1145 UT
Sp

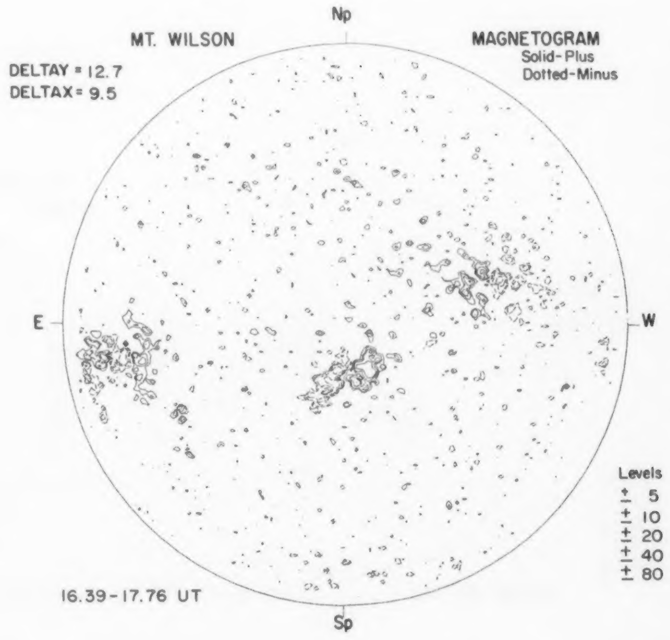

NELC LA POSTA
Np
2.0 CM
E
W
1728 UT
Sp
Ant. Temp. Unit 100°K


NELC LA POSTA
Np
8.6 MM
NO DATA
E
EQUIPMENT
W
---- UT
Sp
Ant. Temp. Unit 100°K

MAY 19, 1976 (P =-19.82, B_0 =-2.15, L_0 =115.74)

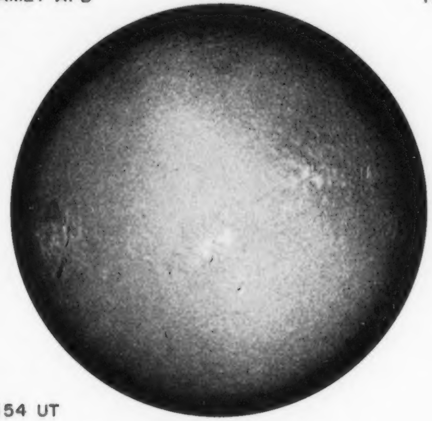




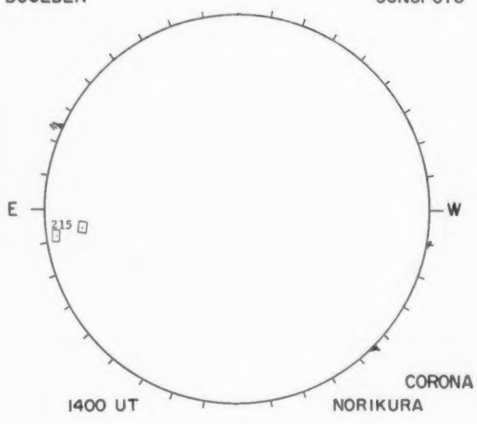


19

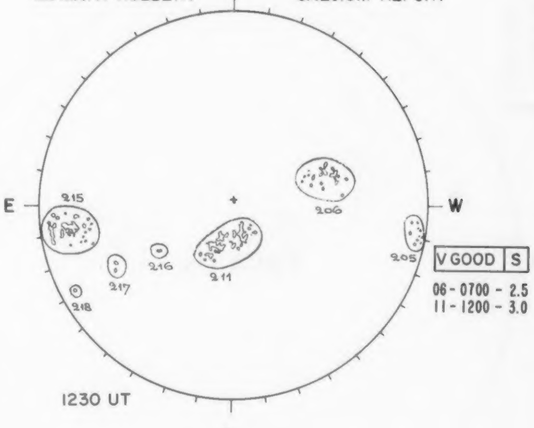
RAMEY AFB



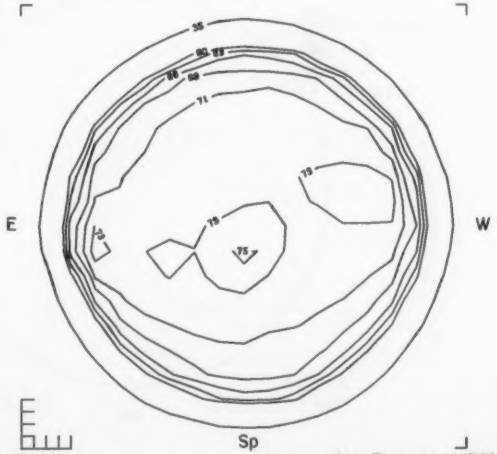
Hα BOULDER SUNSPOTS



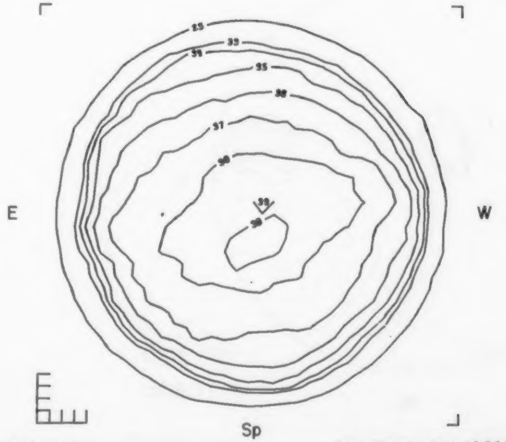
McMATH-HULBERT CALCIUM REPORT



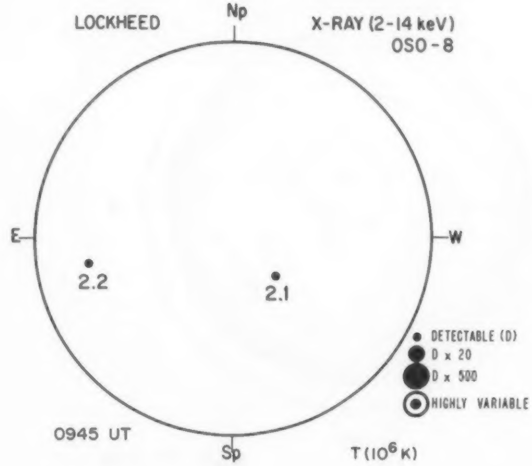
NELC LA POSTA 2.0 CM

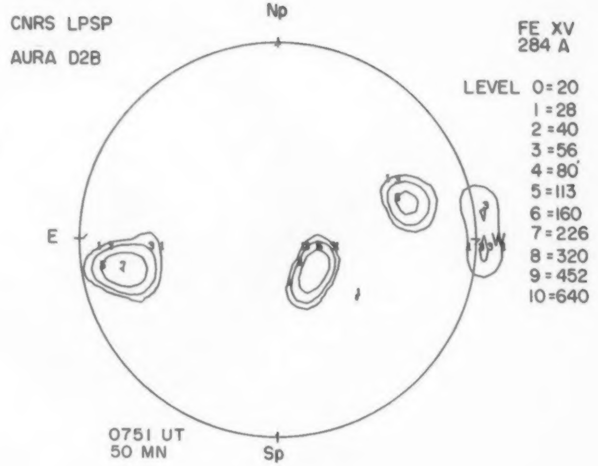


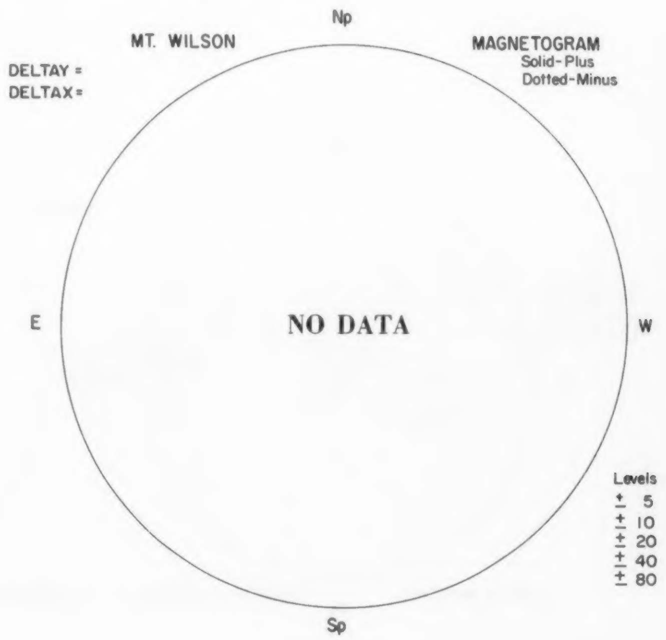
NELC LA POSTA 8.6 MM



MAY 20, 1976 $(P = -19.51,\ B_o = -2.03,\ L_o = 102.51)$

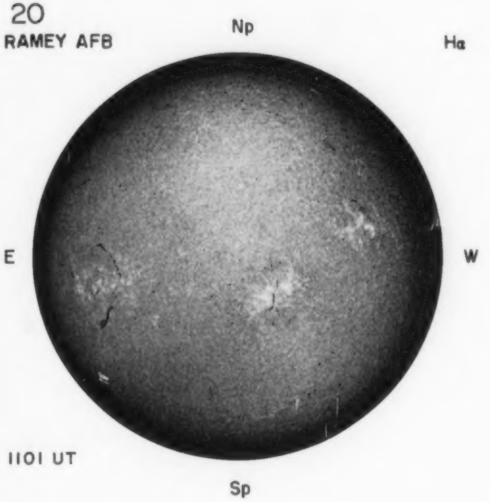




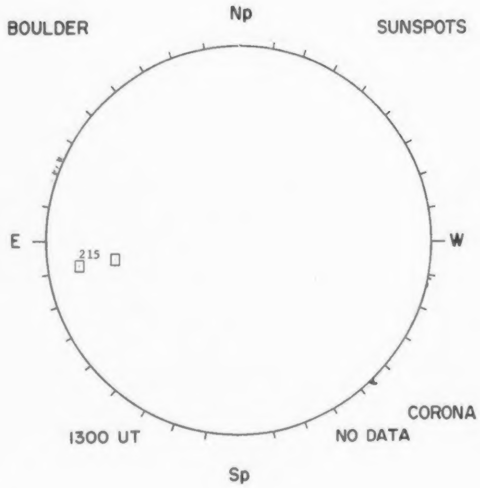


20

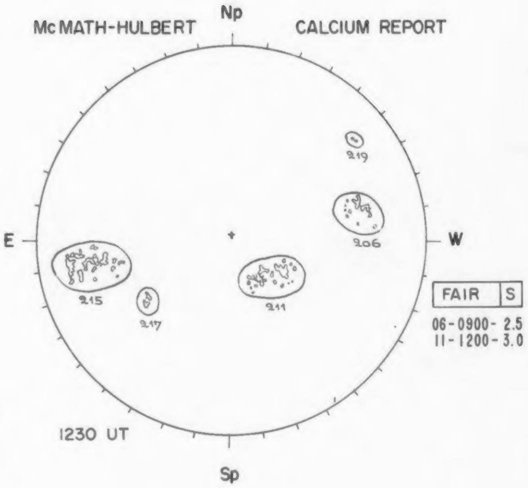
RAMEY AFB



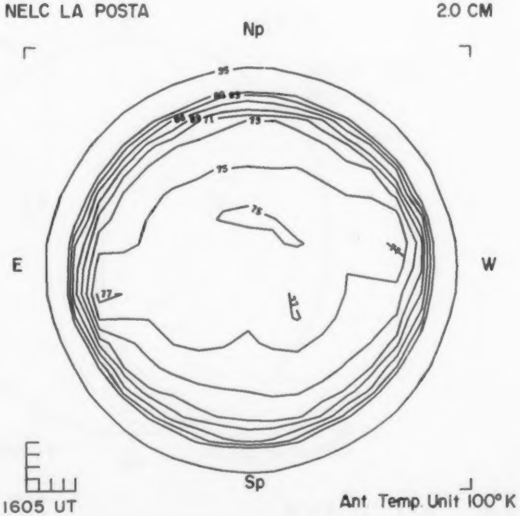
Hα BOULDER SUNSPOTS



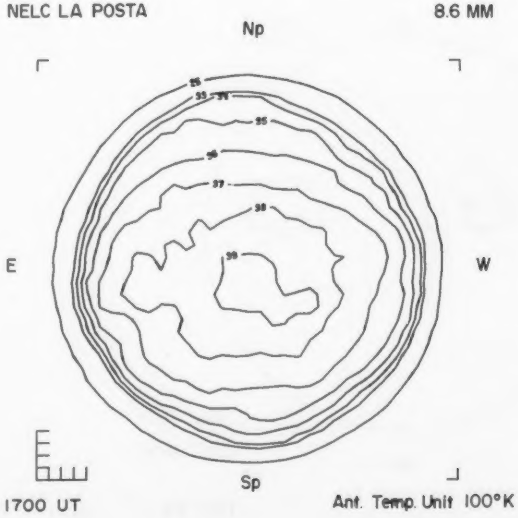
McMATH-HULBERT CALCIUM REPORT



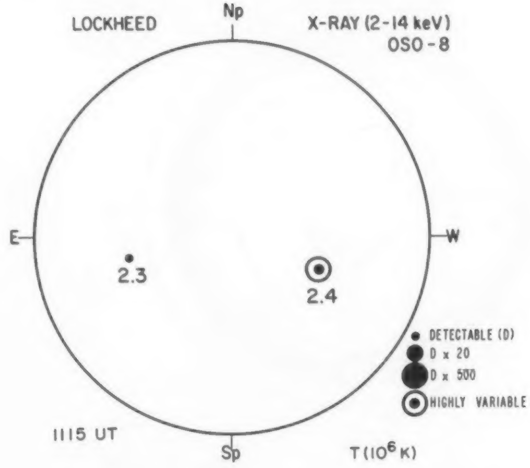
NELC LA POSTA 2.0 CM

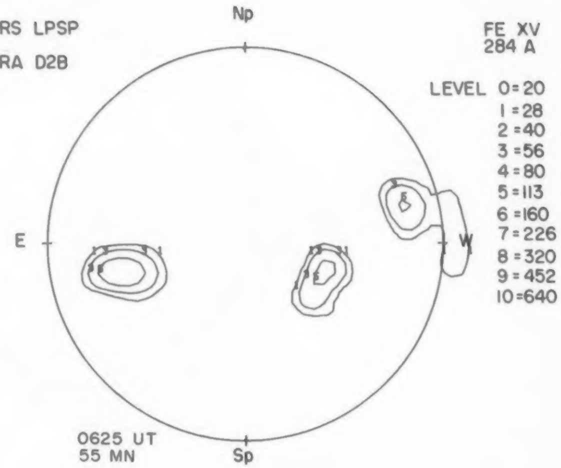


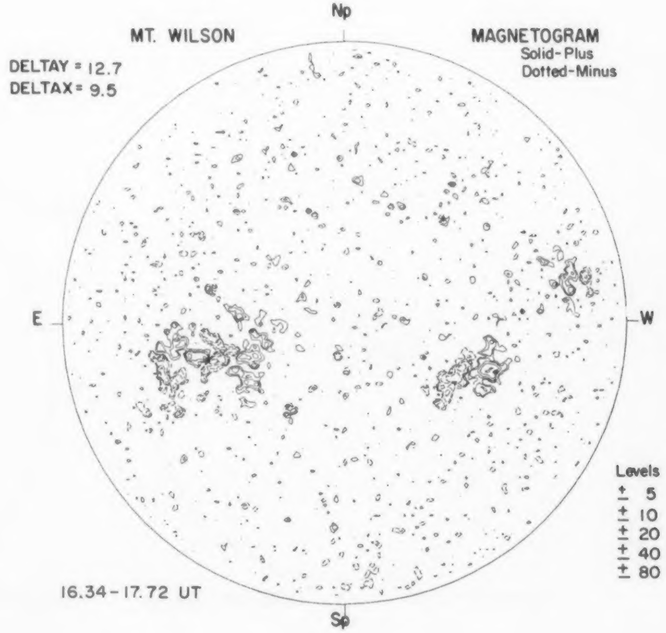
NELC LA POSTA 8.6 MM



MAY 21, 1976 ($P = -19.20$, $B_0 = -1.92$, $L_0 = 89.28$)

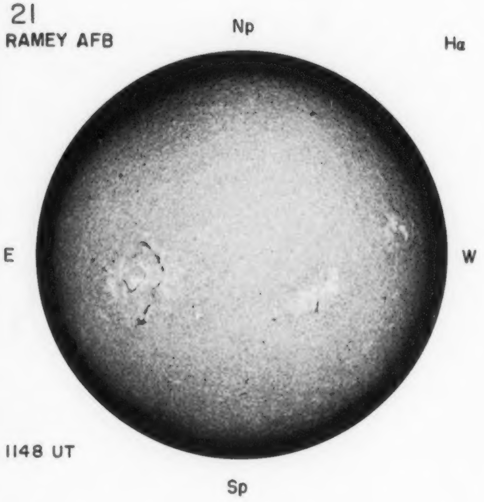






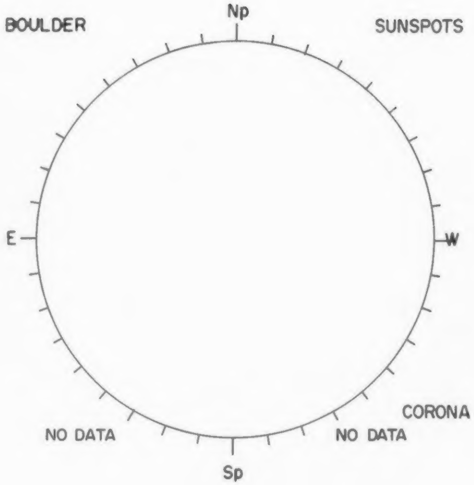
21

RAMEY AFB — Hα

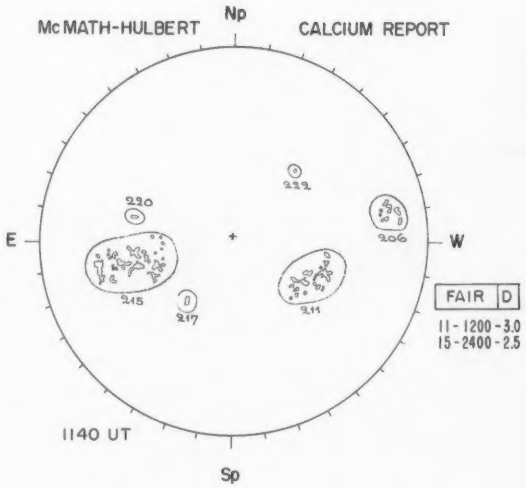


1148 UT

BOULDER — SUNSPOTS

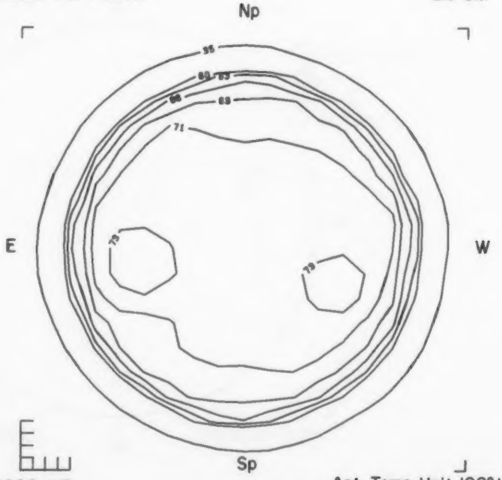


McMATH-HULBERT — CALCIUM REPORT



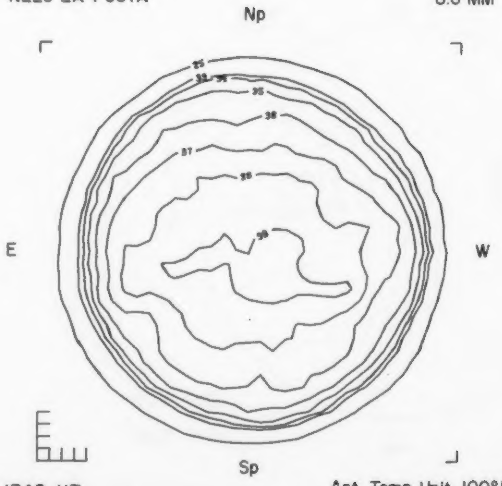
1140 UT

NELC LA POSTA — 2.0 CM



1920 UT — Ant. Temp. Unit 100°K

NELC LA POSTA — 8.6 MM

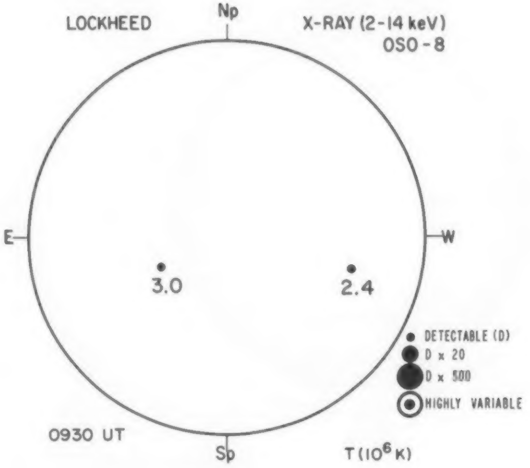


1745 UT — Ant. Temp. Unit 100°K

MAY 22, 1976 (P = -18.89, B_0 = -1.80, L_0 = 76.05)

LOCKHEED

X-RAY (2-14 keV)
OSO-8

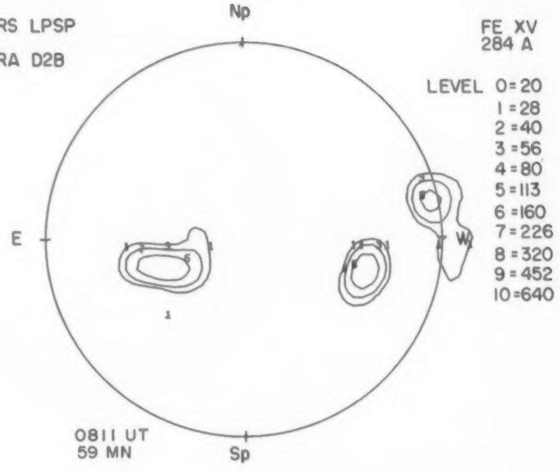


0930 UT

T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A



0811 UT
59 MN

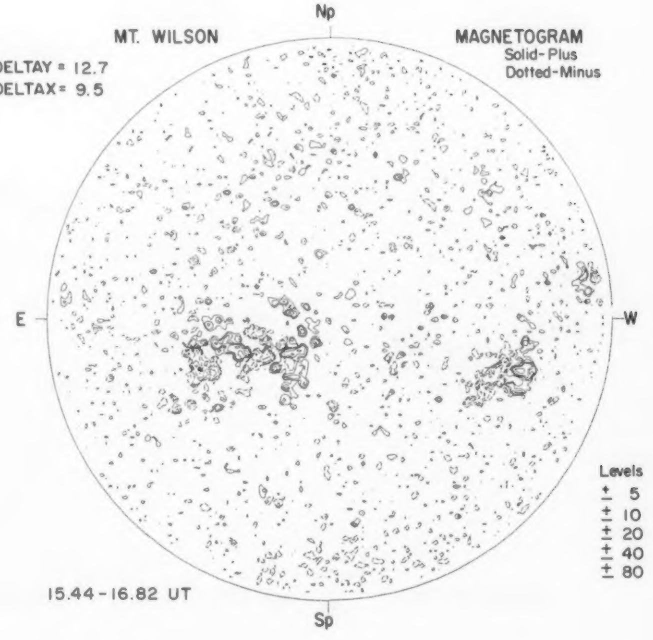
KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

MT. WILSON

MAGNETOGRAM
Solid-Plus
Dotted-Minus

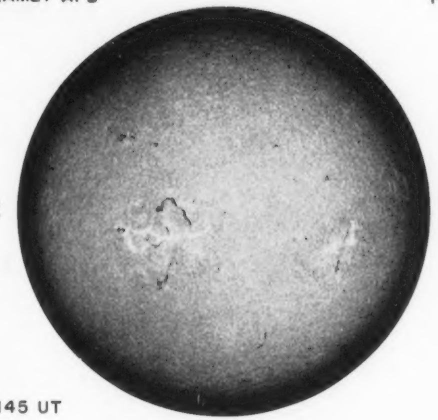
DELTAY = 12.7
DELTAX = 9.5



15.44-16.82 UT

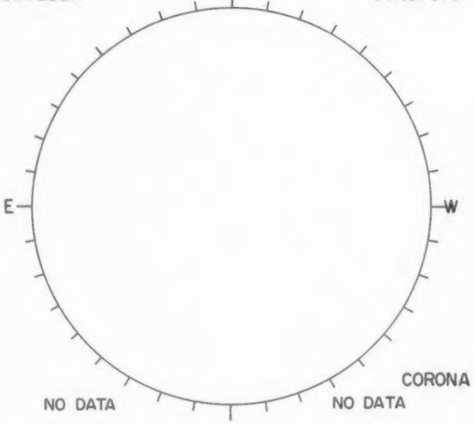
22

RAMEY AFB

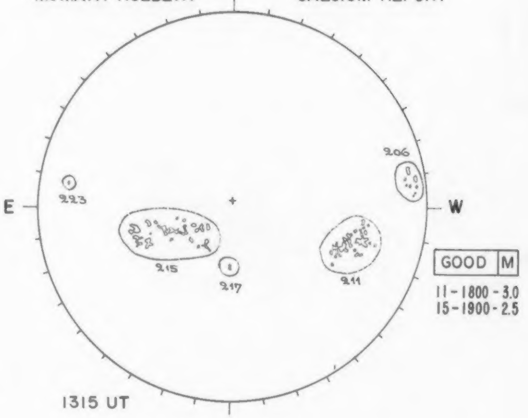


Hα

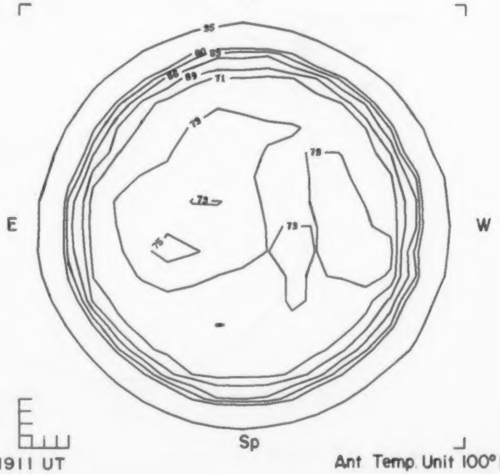
BOULDER SUNSPOTS



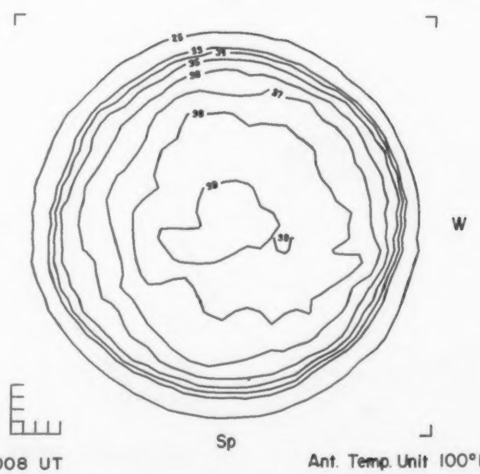
McMATH-HULBERT CALCIUM REPORT



NELC LA POSTA 2.0 CM



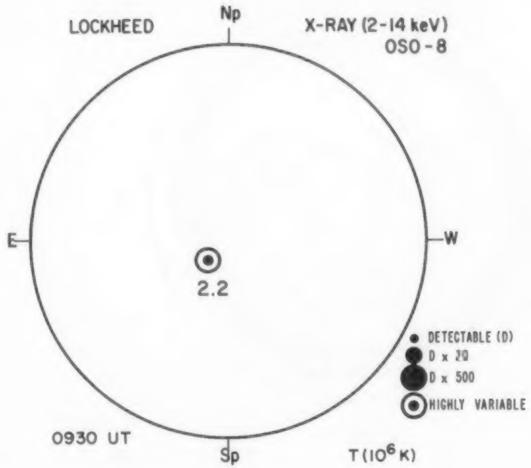
NELC LA POSTA 8.6 MM



MAY 23, 1976 ($P = -18.56$, $B_0 = -1.68$, $L_0 = 62.82$)

LOCKHEED

X-RAY (2-14 keV)
OSO-8

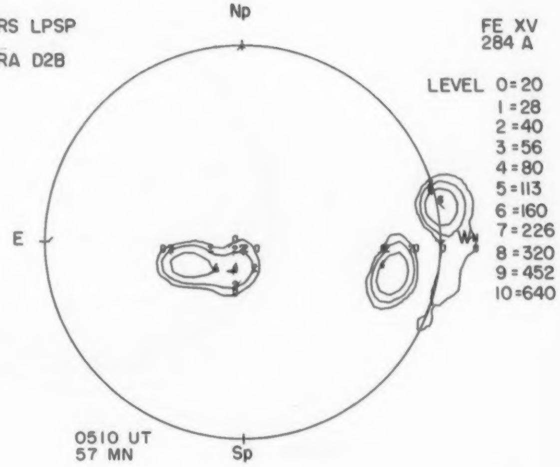


0930 UT

T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A



0510 UT
57 MN

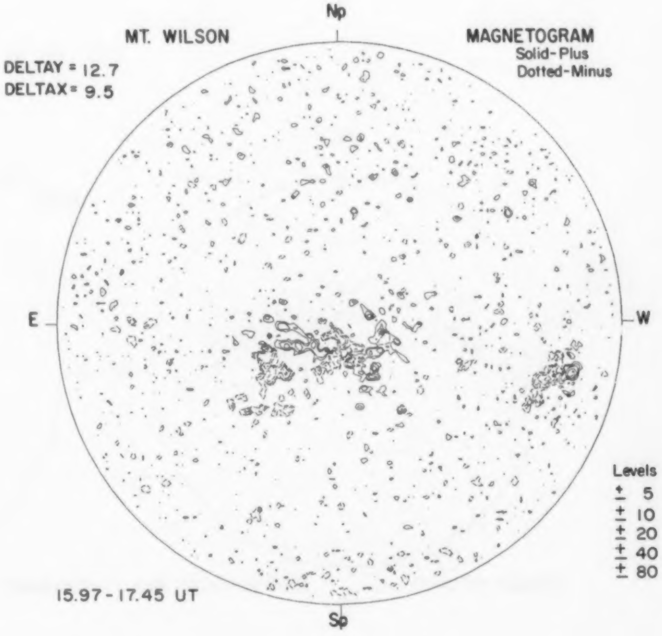
KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

MT. WILSON

MAGNETOGRAM
Solid-Plus
Dotted-Minus

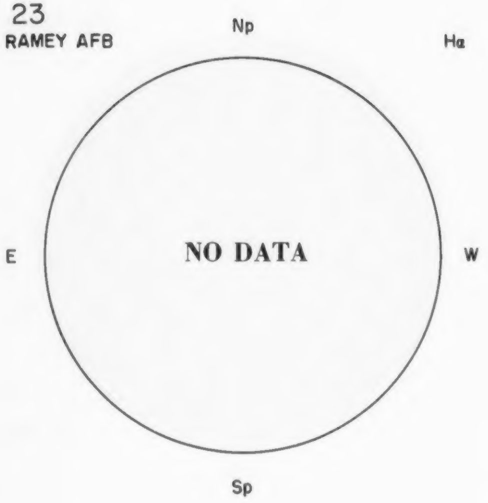
DELTAY = 12.7
DELTAX = 9.5



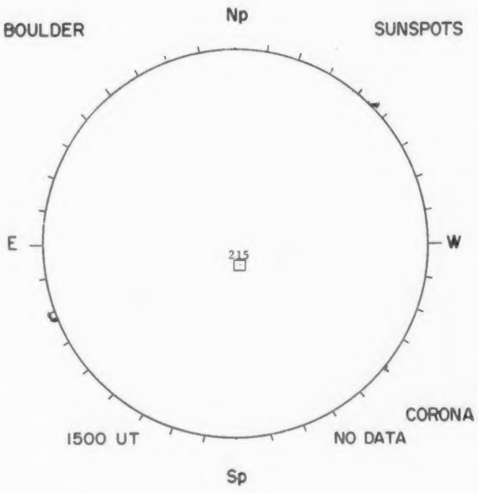
15.97 - 17.45 UT

23

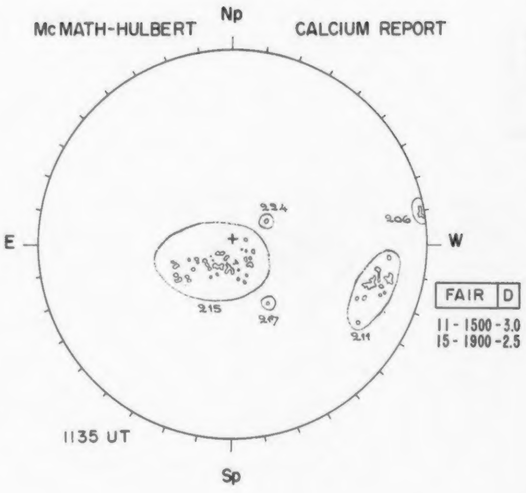
RAMEY AFB



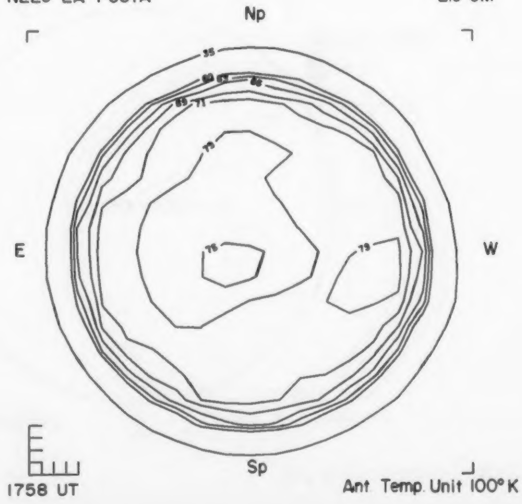
Hα BOULDER SUNSPOTS



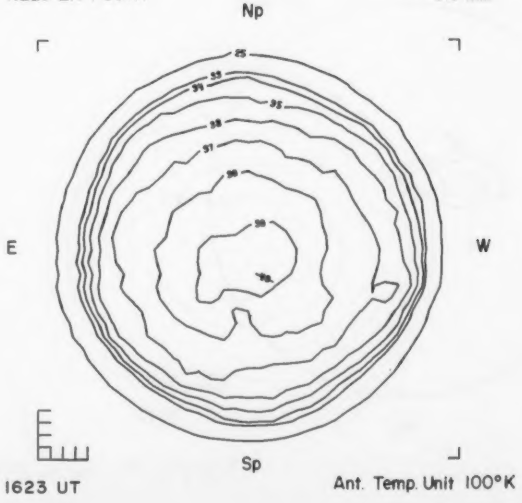
McMATH-HULBERT CALCIUM REPORT



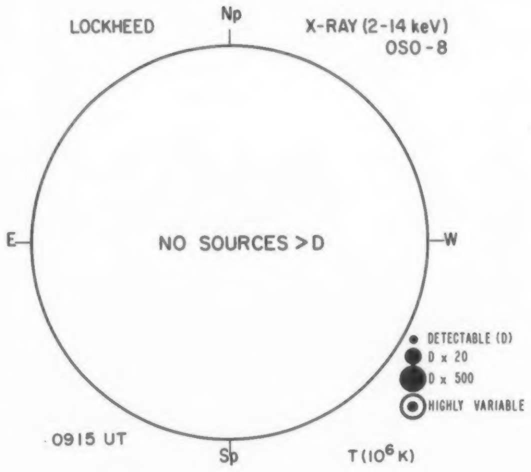
NELC LA POSTA 2.0 CM

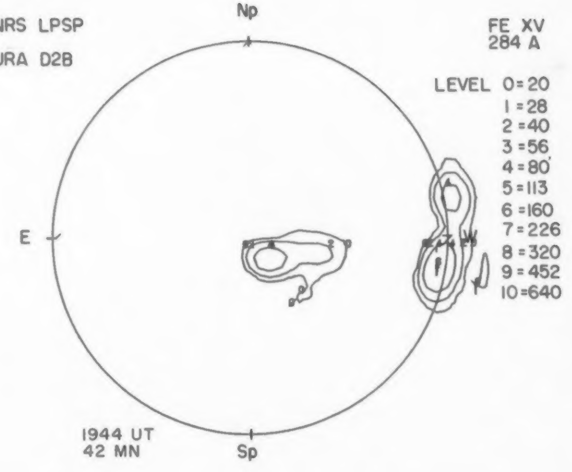


NELC LA POSTA 8.6 MM



MAY 24, 1976 (P = -18.23, B_o = -1.56, L_o = 49.59)





KITT PEAK

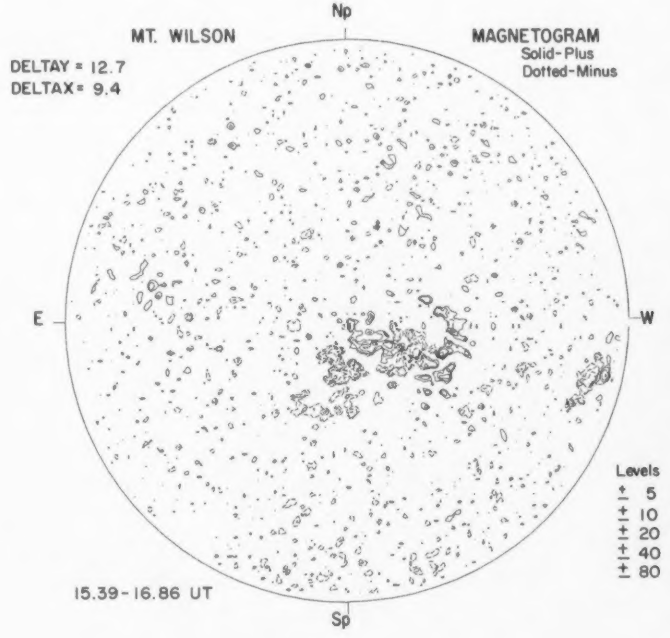
MAGNETOGRAM
Bright- Plus
Dark - Minus

Np

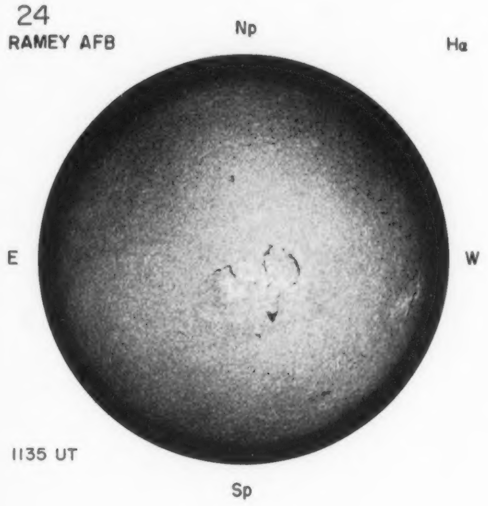
E

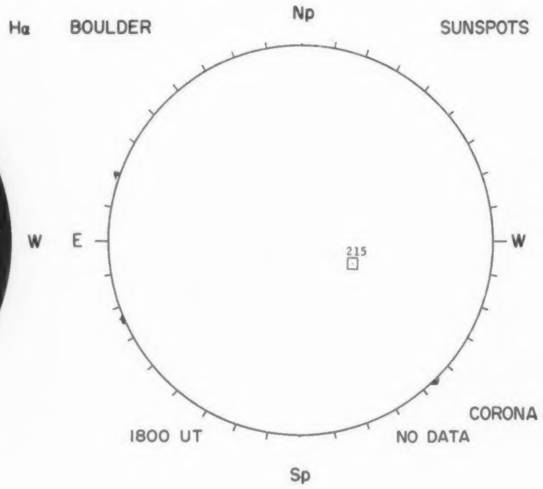
W

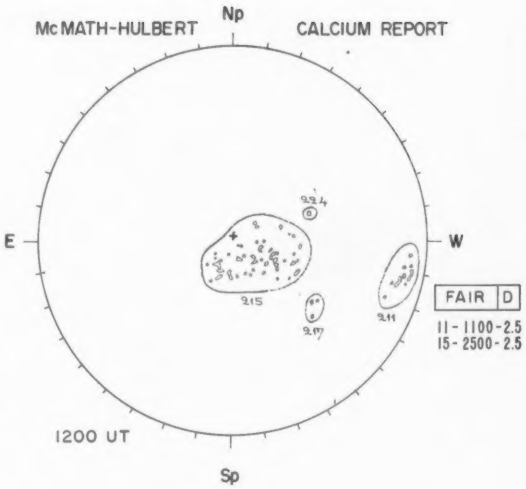
Sp

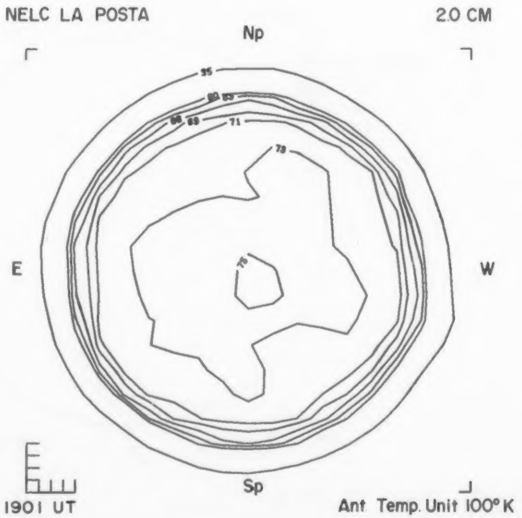


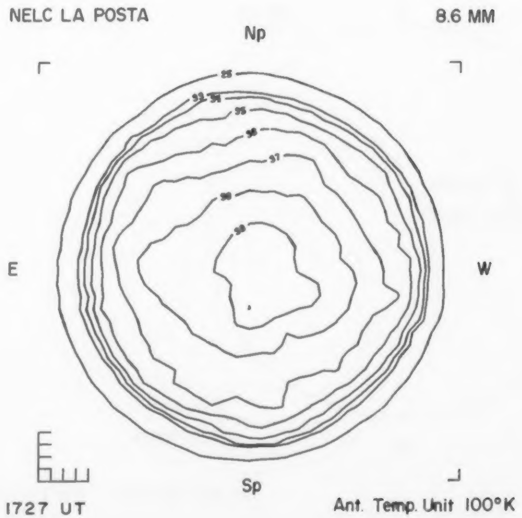
24


RAMEY AFB
Np
E
W
1135 UT
Sp

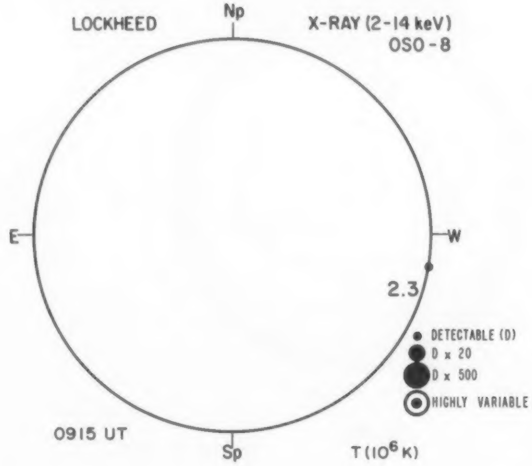

Hα
BOULDER
Np
SUNSPOTS
E
W
215
CORONA
1800 UT
NO DATA
Sp

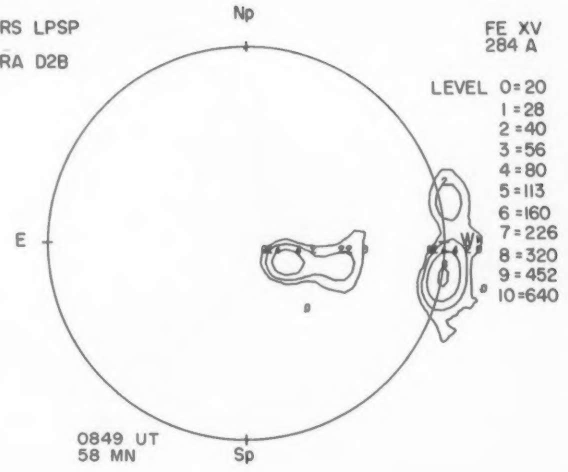

McMATH-HULBERT
Np
CALCIUM REPORT
E
W
224
215
217
211
FAIR D
11-1100-2.5
15-2500-2.5
1200 UT
Sp

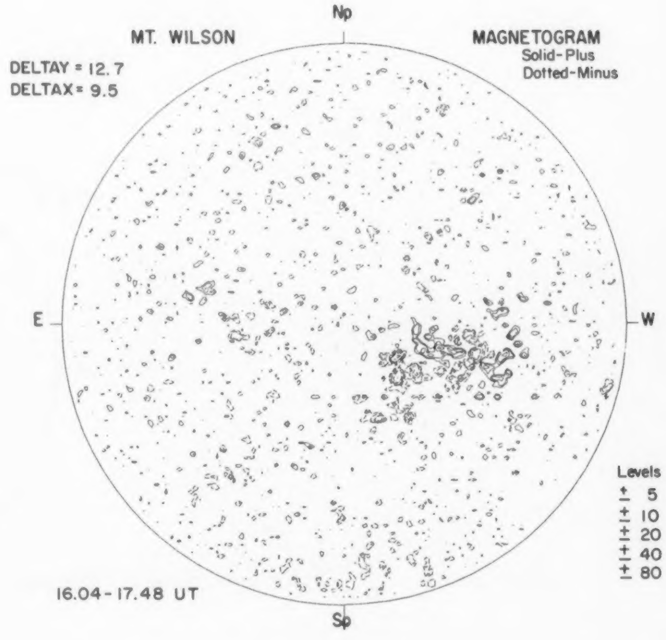

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1901 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1727 UT
Ant. Temp. Unit 100°K

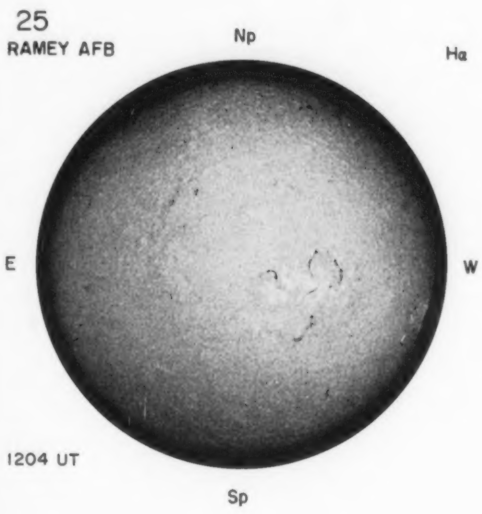
MAY 25, 1976 (P =-17.90, B_o =-1.44, L_o = 36.36)

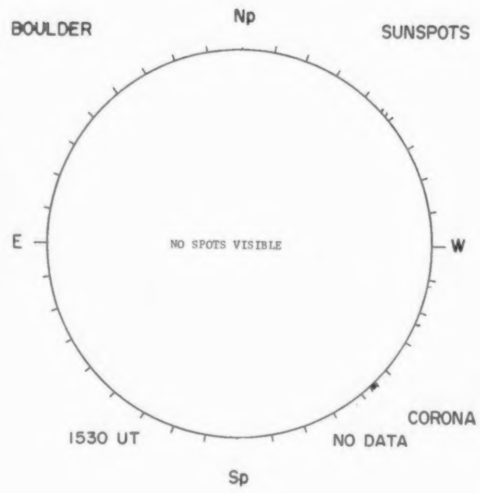


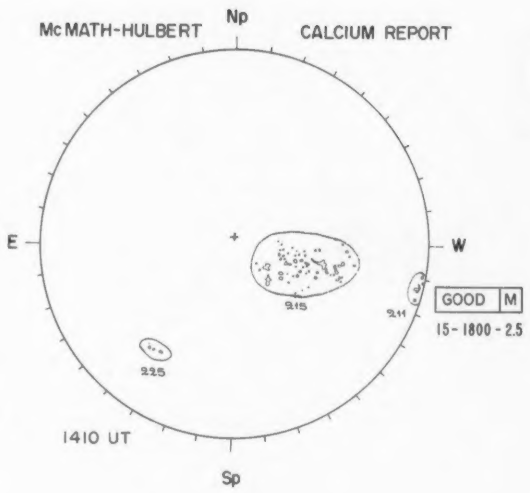


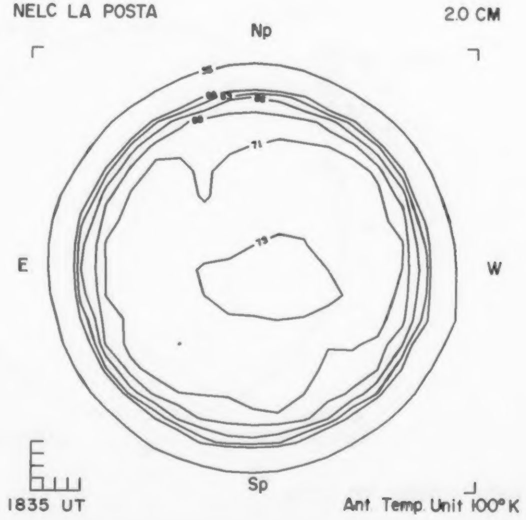


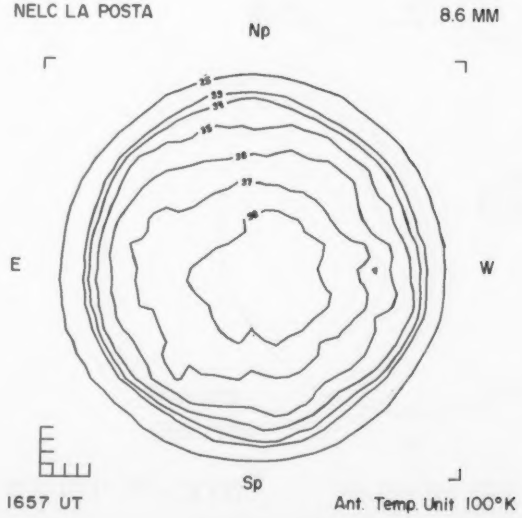
25


RAMEY AFB
Hα
Np
E
W
Sp
1204 UT

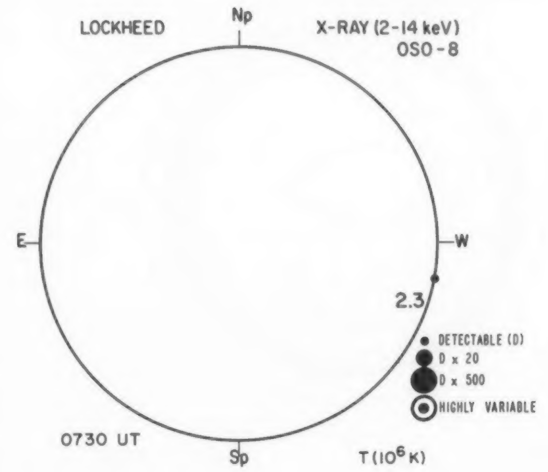

BOULDER
SUNSPOTS
Np
E
W
Sp
NO SPOTS VISIBLE
1530 UT
CORONA
NO DATA

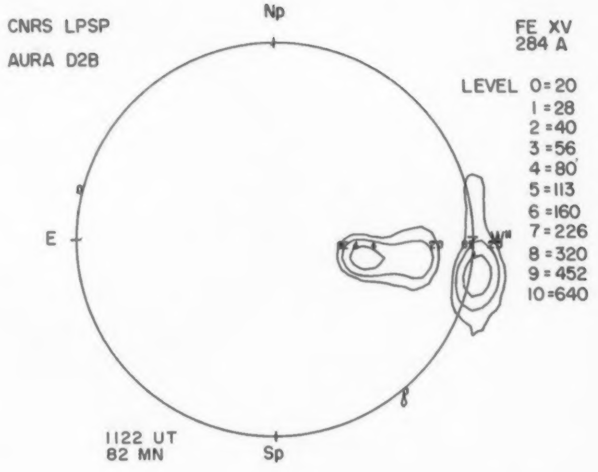

McMATH-HULBERT
CALCIUM REPORT
Np
E
W
Sp
215
211
225
GOOD
M
15-1800-2.5
1410 UT

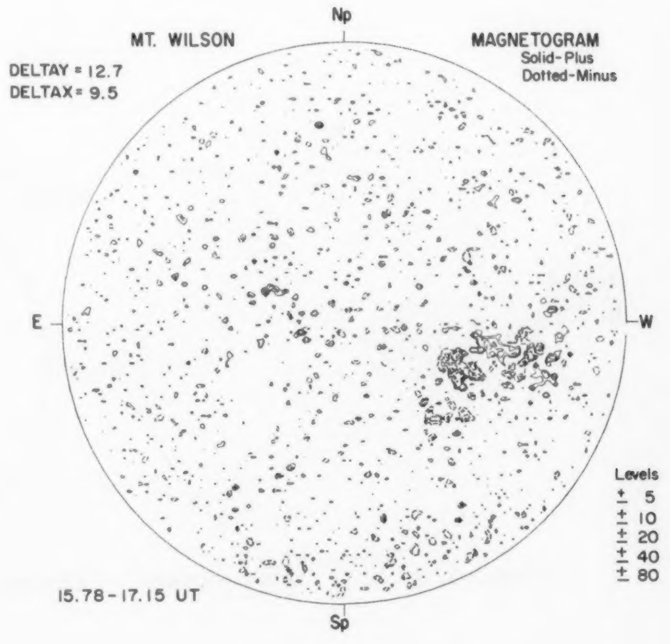

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1835 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1657 UT
Ant. Temp. Unit 100°K

MAY 26, 1976 ($P = -17.56$, $B_o = -1.33$, $L_o = 23.13$)



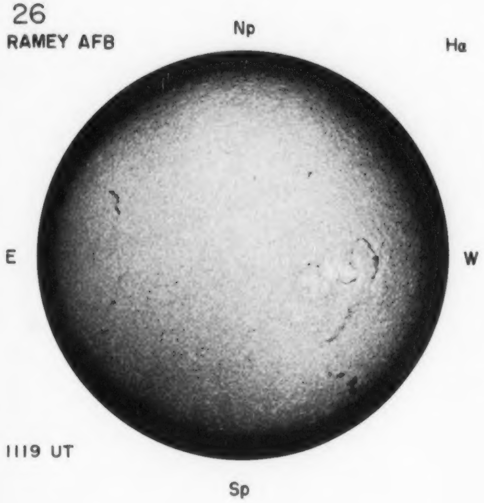




26

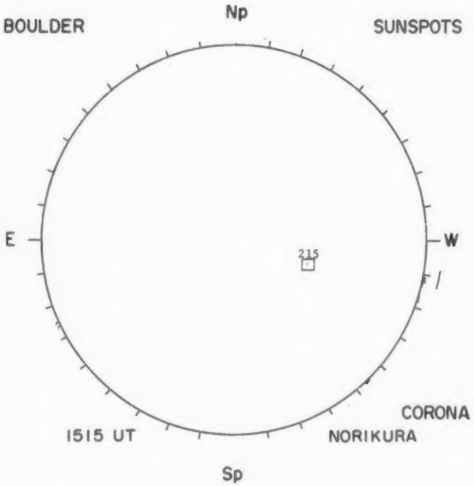
RAMEY AFB

Hα



1119 UT

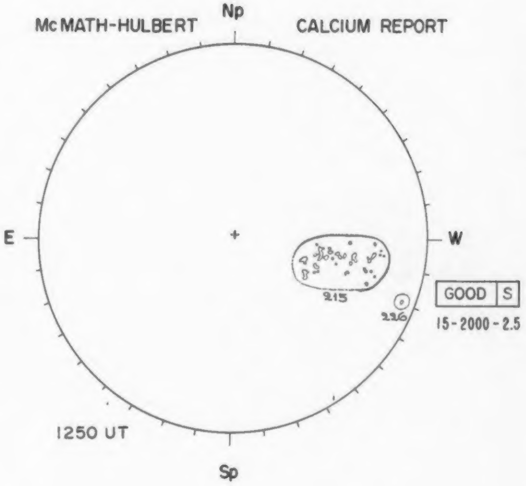
BOULDER SUNSPOTS



1515 UT

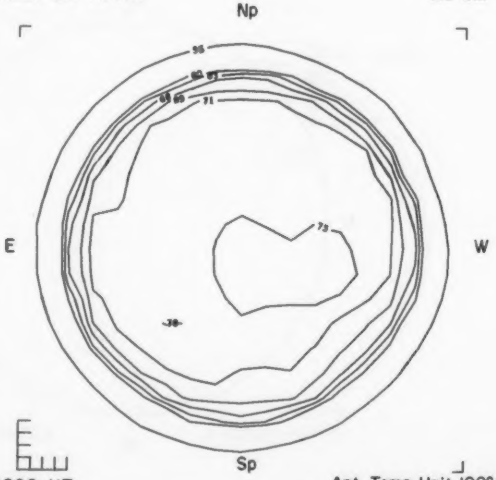
CORONA
NORIKURA

McMATH-HULBERT CALCIUM REPORT



1250 UT

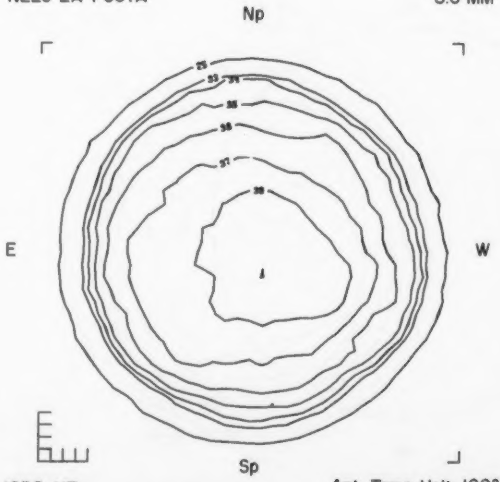
NELC LA POSTA 2.0 CM



1809 UT

Ant. Temp. Unit 100°K

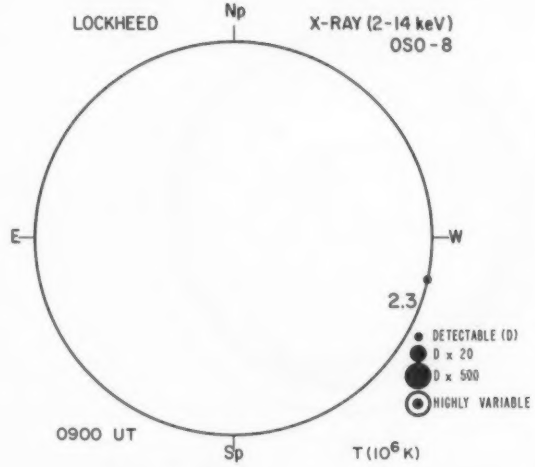
NELC LA POSTA 8.6 MM

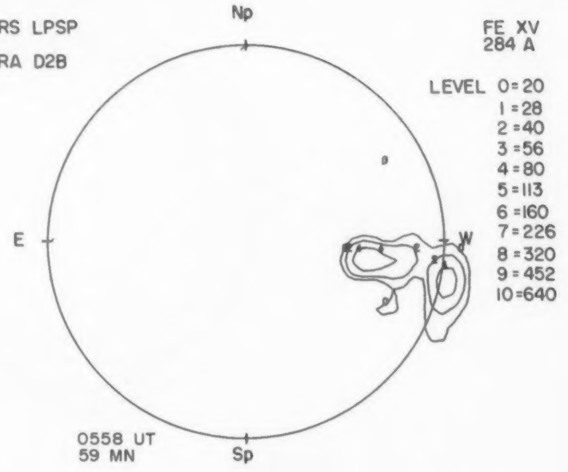


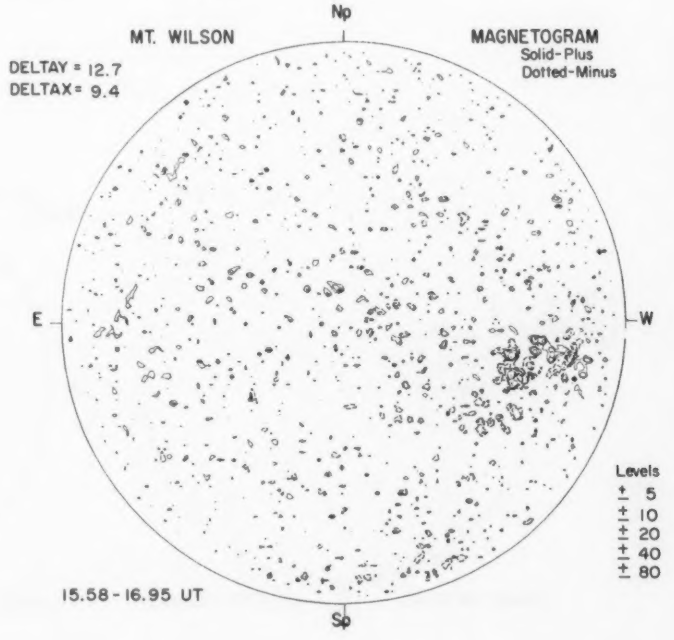
1635 UT

Ant. Temp. Unit 100°K

MAY 27, 1976 (P =-17.22, B_o =-1.21, L_o =9.90)



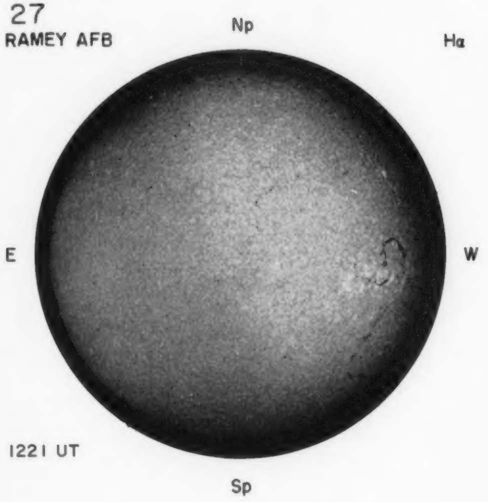




27

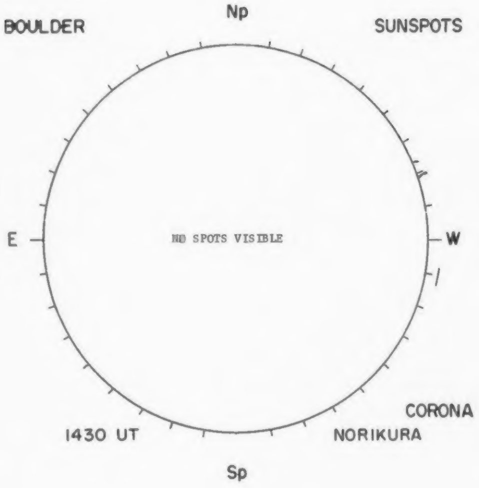
RAMEY AFB

Hα



1221 UT

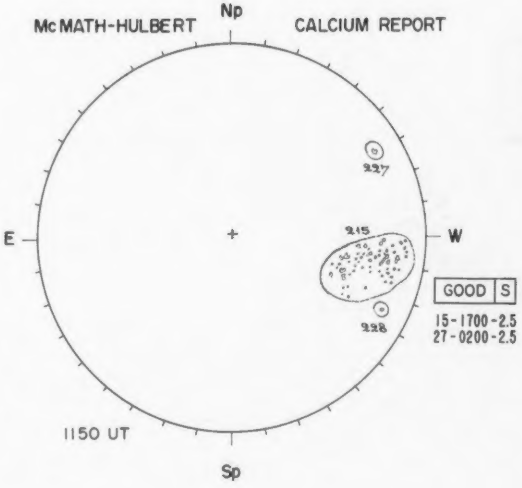
BOULDER SUNSPOTS



1430 UT

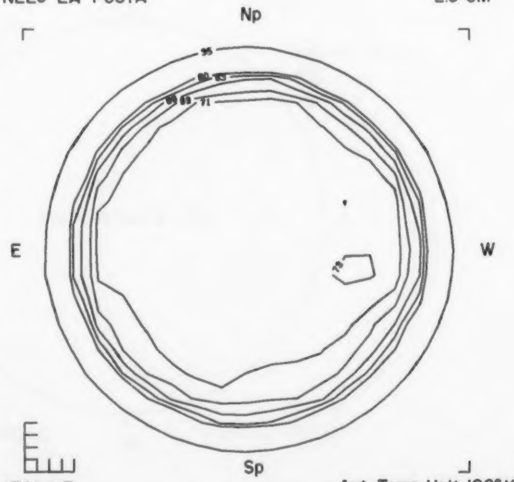
CORONA
NORIKURA

McMATH-HULBERT CALCIUM REPORT



1150 UT

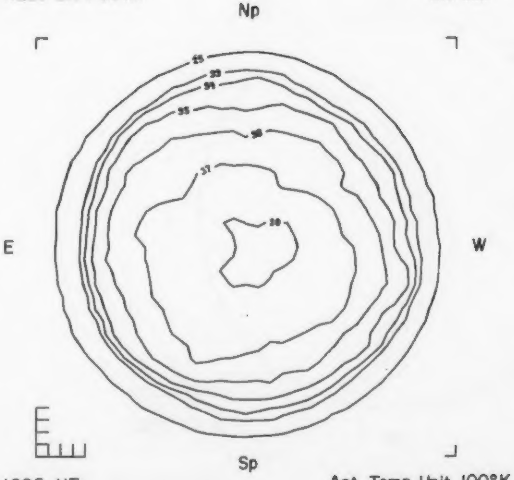
NELC LA POSTA 2.0 CM



1741 UT

Ant. Temp. Unit 100°K

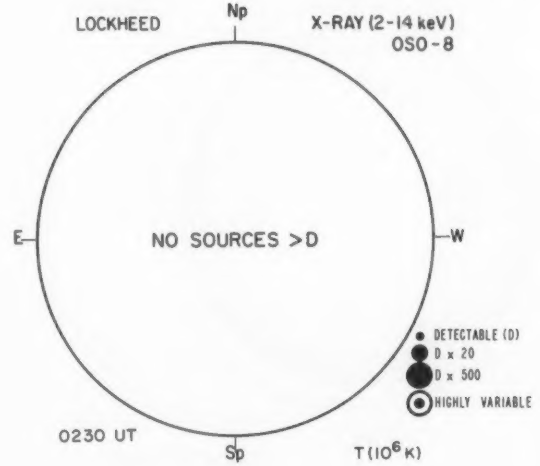
NELC LA POSTA 8.6 MM

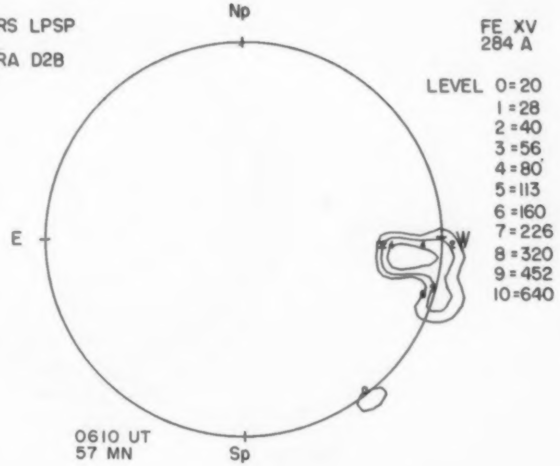


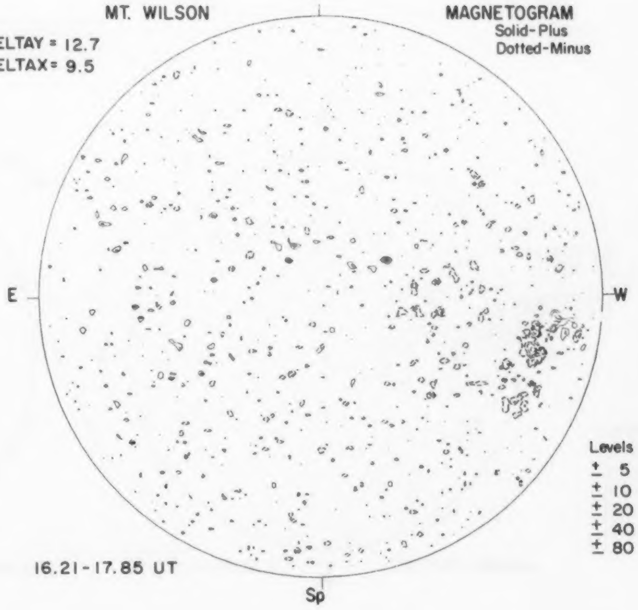
1605 UT

Ant. Temp. Unit 100°K

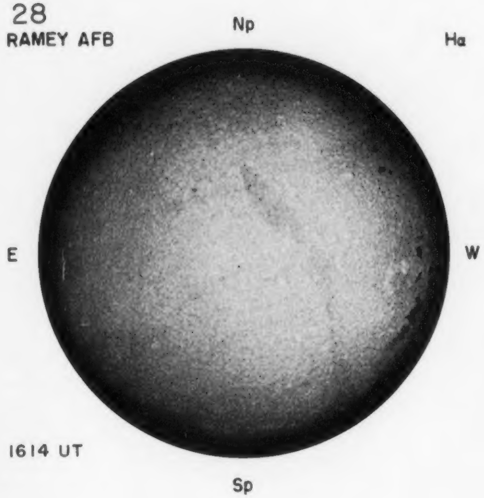
MAY 28, 1976 (P =-16.86, B_o =-1.09, L_o =356.67)

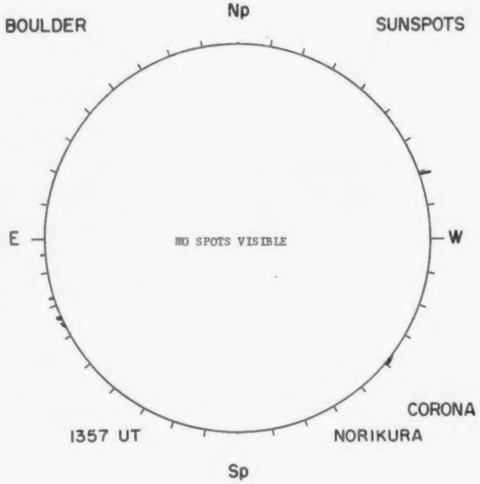


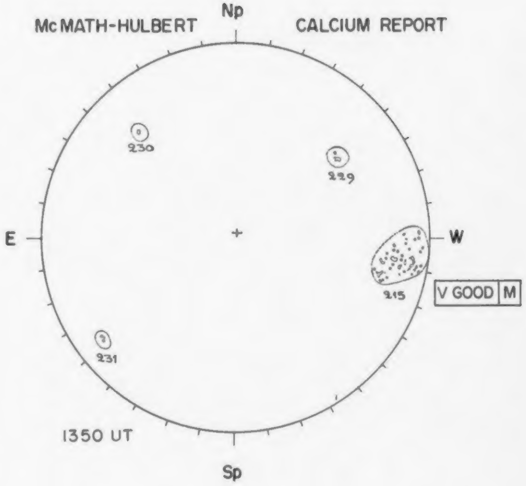


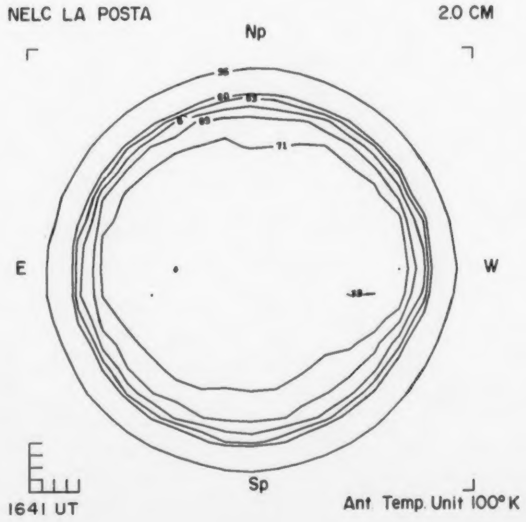


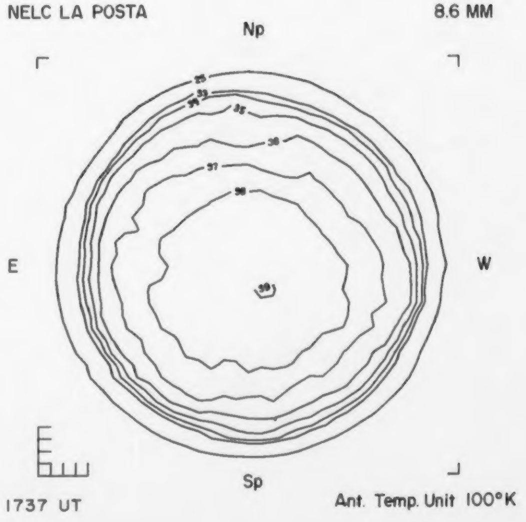
28


RAMEY AFB
Np
Hα
E
W
1614 UT
Sp

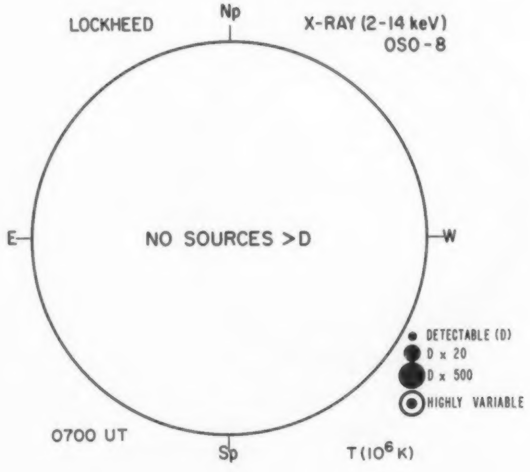

BOULDER
Np
SUNSPOTS
E
W
NO SPOTS VISIBLE
1357 UT
Sp
CORONA
NORIKURA

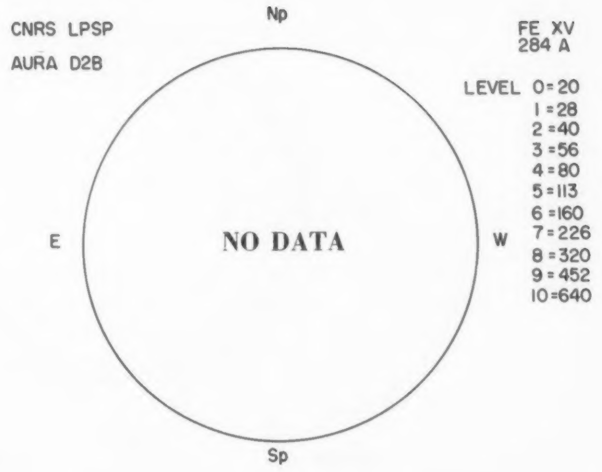

McMATH-HULBERT
Np
CALCIUM REPORT
E
W
230
229
215
231
V GOOD
M
1350 UT
Sp

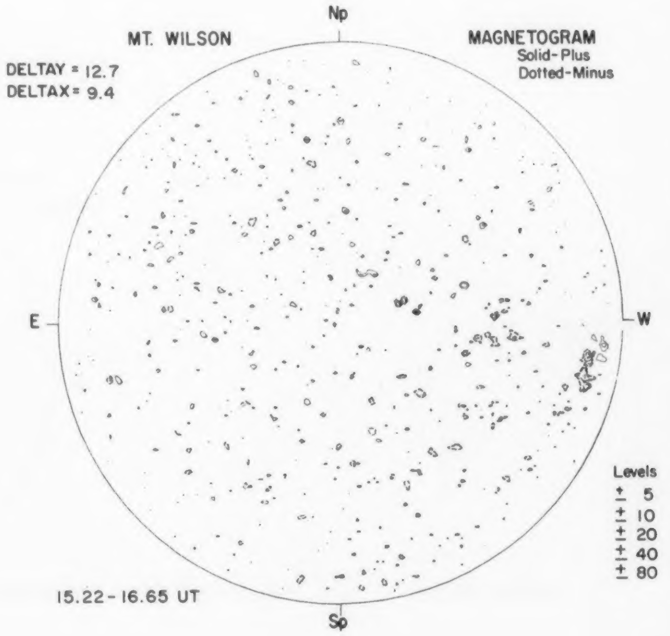

NELC LA POSTA
2.0 CM
Np
E
W
Sp
1641 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1737 UT
Ant. Temp. Unit 100°K

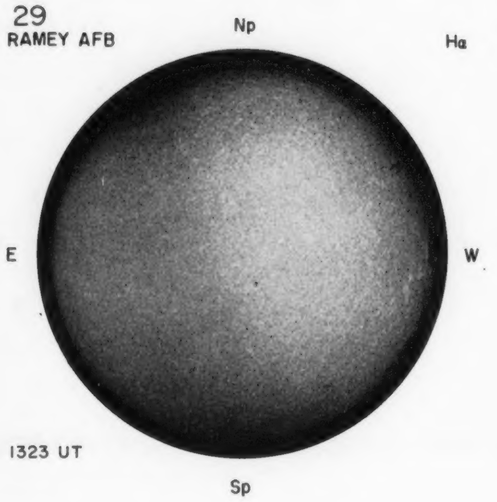
MAY 29, 1976 (P = -16.51, B_o = -0.97, L_o = 343.43)

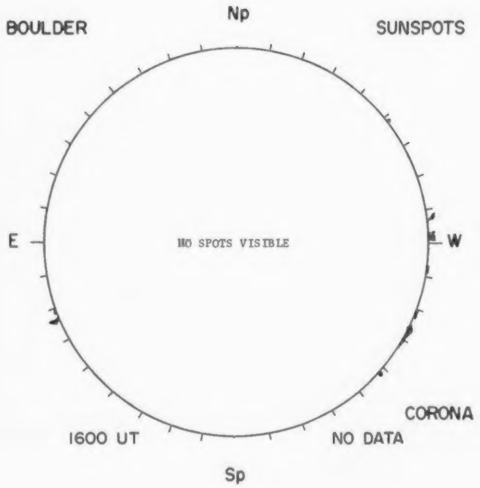


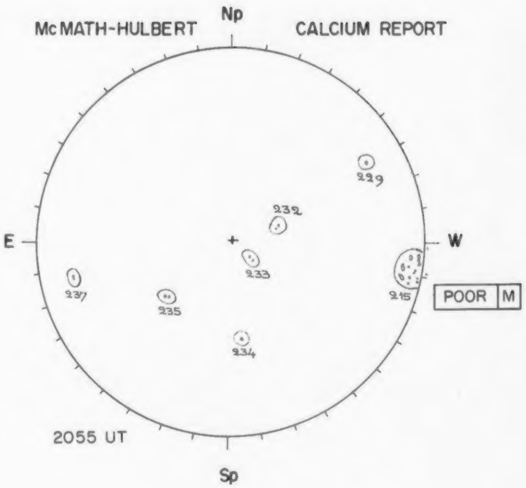




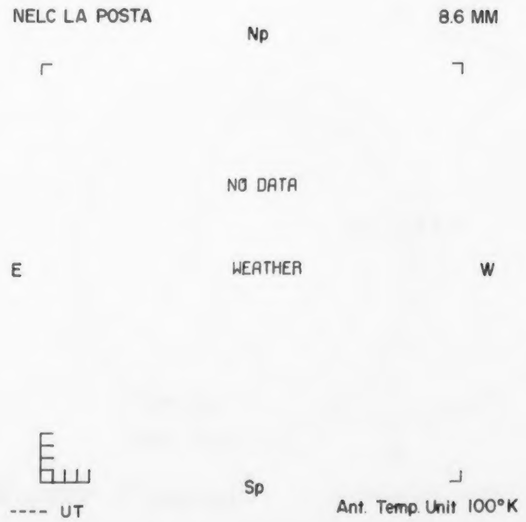
29


RAMEY AFB
Hα
Np
E
W
Sp
1323 UT


BOULDER
SUNSPOTS
Np
E
W
NO SPOTS VISIBLE
CORONA
NO DATA
Sp
1600 UT

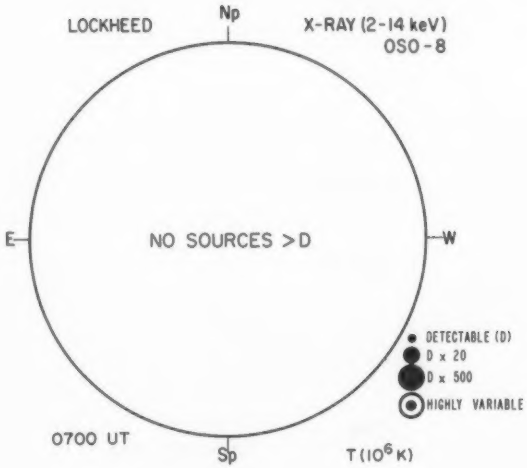

McMATH-HULBERT
CALCIUM REPORT
Np
E
W
Sp
229
232
233
234
235
237
215
POOR
M
2055 UT

NELC LA POSTA
2.0 CM
Np
NO DATA
E
WEATHER
W
Sp
---- UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
NO DATA
E
WEATHER
W
Sp
---- UT
Ant. Temp. Unit 100°K

MAY 30, 1976 (P =-16.15, B_0 =-0.85, L_0 =330.20)

LOCKHEED X-RAY (2-14 keV) OSO-8

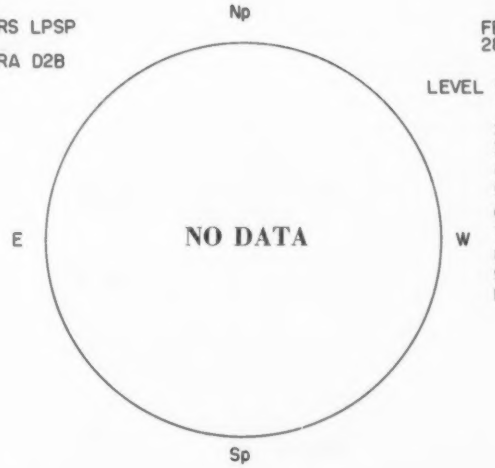


0700 UT T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A

LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640



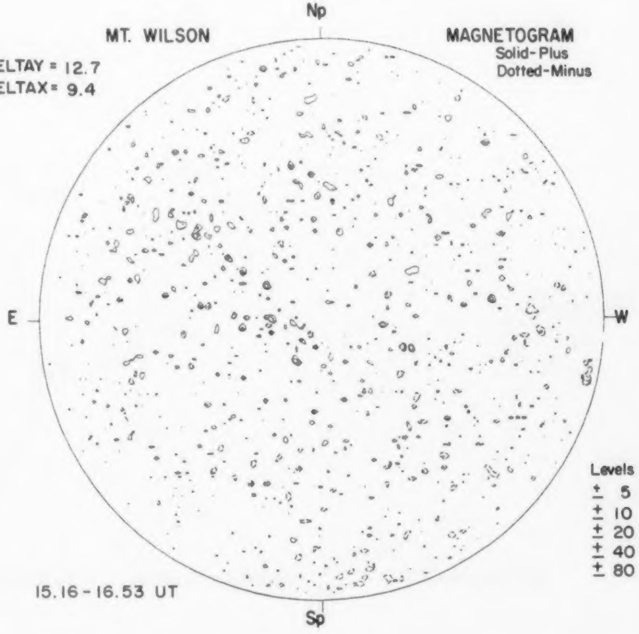
KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

MT. WILSON

MAGNETOGRAM
Solid-Plus
Dotted-Minus

DELTAY = 12.7
DELTAX = 9.4

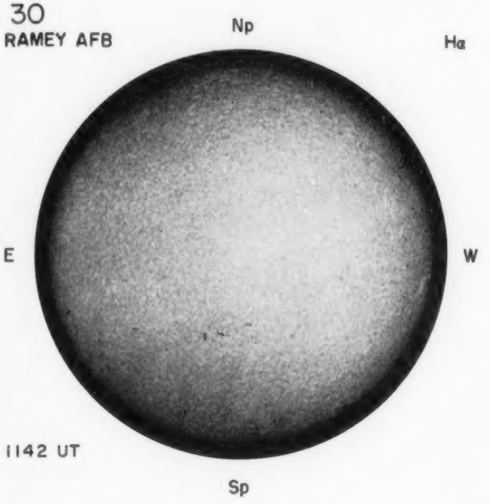


Levels
± 5
± 10
± 20
± 40
± 80

15.16 - 16.53 UT

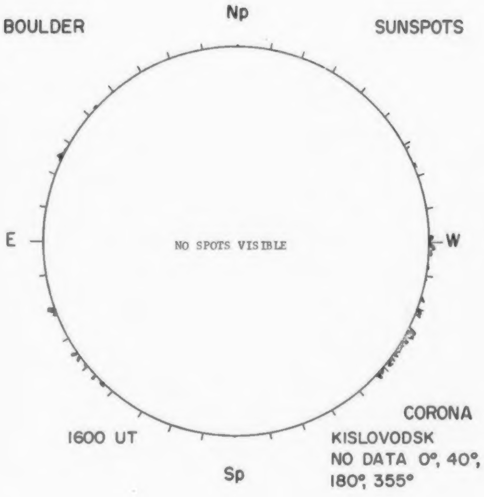
30

RAMEY AFB — Hα



1142 UT

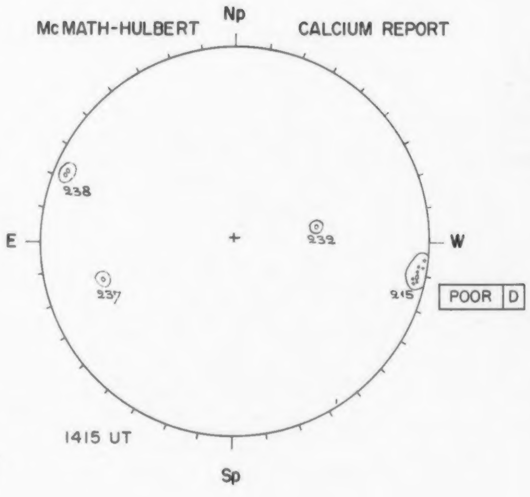
BOULDER — SUNSPOTS



1600 UT

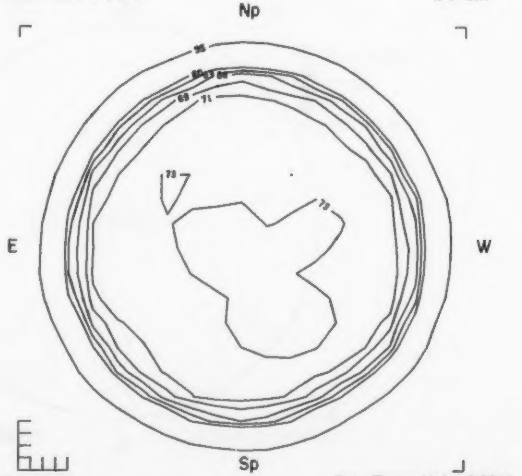
CORONA
KISLOVODSK
NO DATA 0°, 40°, 180°, 355°

McMATH-HULBERT — CALCIUM REPORT



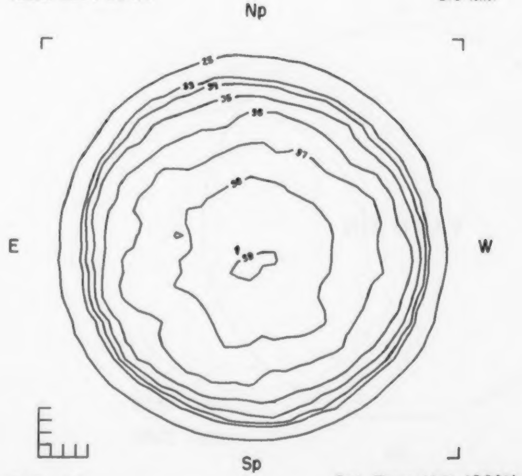
1415 UT

NELC LA POSTA — 2.0 CM



1957 UT — Ant. Temp. Unit 100°K

NELC LA POSTA — 8.6 MM

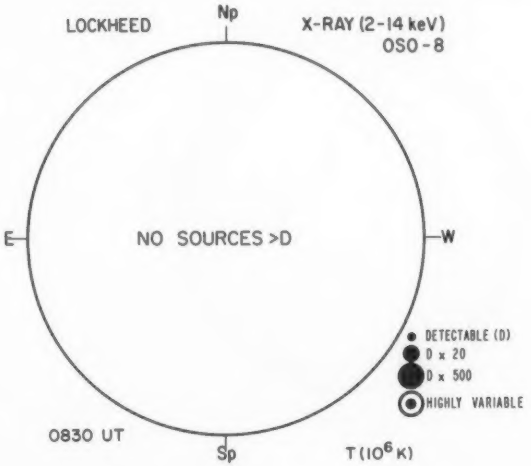


1817 UT — Ant. Temp. Unit 100°K

MAY 31, 1976 (P=-15.78, B_0=-0.73, L_0=316.97)

LOCKHEED

X-RAY (2-14 keV)
OSO-8



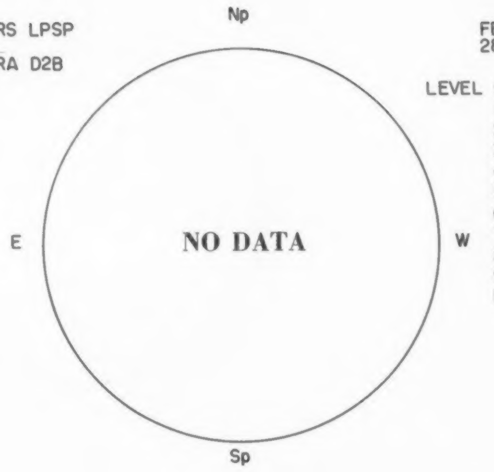
0830 UT

T(10^6 K)

CNRS LPSP
AURA D2B

FE XV
284 A

LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640



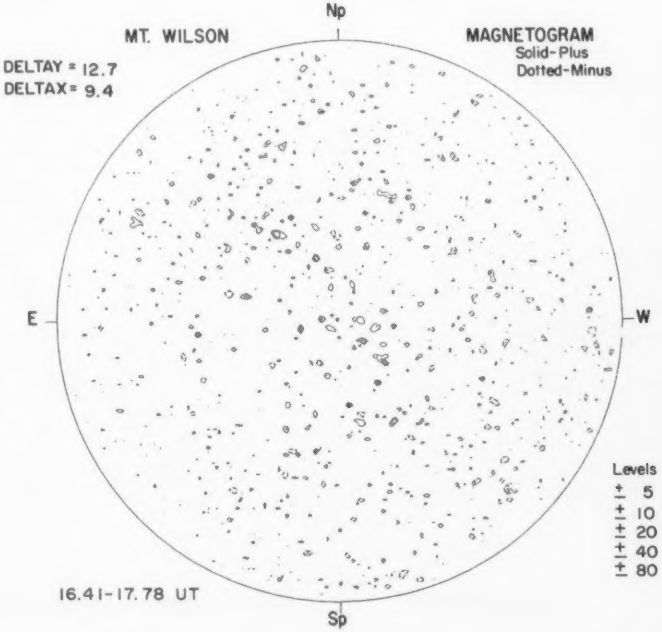
KITT PEAK

MAGNETOGRAM
Bright- Plus
Dark - Minus

MT. WILSON

MAGNETOGRAM
Solid-Plus
Dotted-Minus

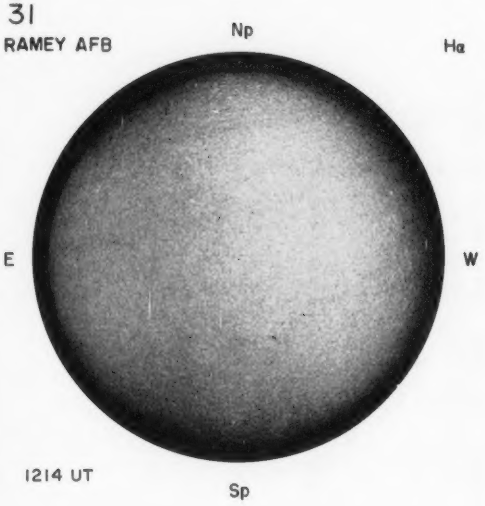
DELTAY = 12.7
DELTAX = 9.4

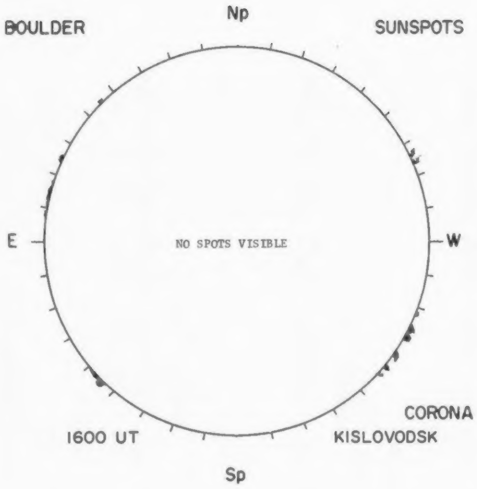


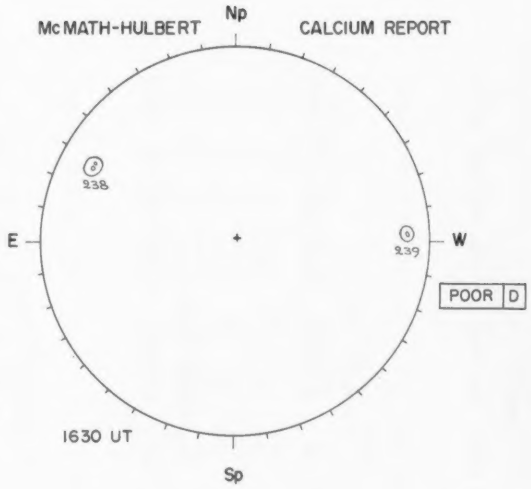
Levels
± 5
± 10
± 20
± 40
± 80

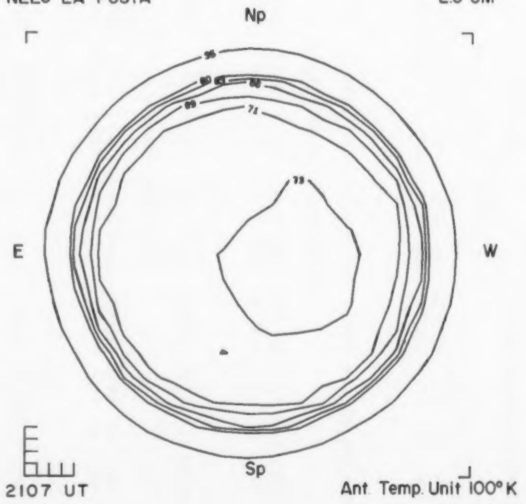
16.41-17.78 UT

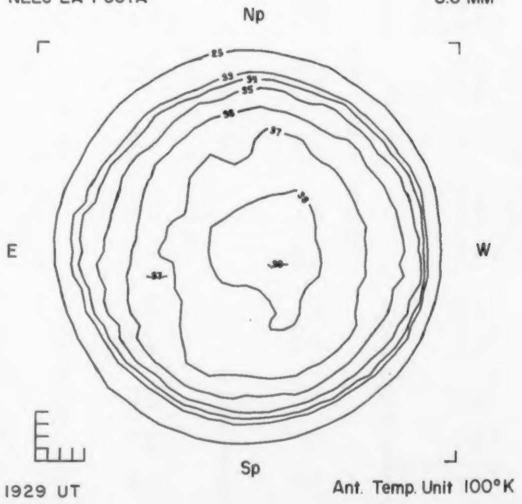
31


RAMEY AFB
Np
Hα
E
W
Sp
1214 UT


BOULDER
Np
SUNSPOTS
E
W
NO SPOTS VISIBLE
CORONA
KISLOVODSK
1600 UT
Sp


McMATH-HULBERT
Np
CALCIUM REPORT
238
239
E
W
POOR D
1630 UT
Sp


NELC LA POSTA
2.0 CM
Np
E
W
Sp
2107 UT
Ant. Temp. Unit 100°K


NELC LA POSTA
8.6 MM
Np
E
W
Sp
1929 UT
Ant. Temp. Unit 100°K

REGIONS OF SOLAR ACTIVITY

MAY 1976

MCMATH REGION 14193 CMP DATE 1.0

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	1	14193	N15	W09	353	100	1.5										

MCMATH REGION 14190 CMP DATE 1.3

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	4	30	14190	N43	E11	351	100	1.5										

MCMATH REGION 14201 CMP DATE 1.5

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	5	14201	N11	W53	347	100	1.5										

MCMATH REGION 14189 CMP DATE 1.8

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	4	29	14189	N29	E29	345	100	1.5										

MCMATH REGION 14191 CMP DATE 2.2

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	4	30	14191	N23	E23	339	100	1.5										

MCMATH REGION 14194 CMP DATE 2.4

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	2	14194	N07	W01	334	200	1.0										

MCMATH REGION 14202 CMP DATE 3.2

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	5	14202	S33	W30	324	100	2.5										

MCMATH REGION 14192 CMP DATE 3.5

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	4	30	14192	S42	E39	323	100	1.5										

MCMATH REGION 14199 CMP DATE 5.0

CALCIUM PLAGE DATA									SUNSPOT DATA									
YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	4	14199	S03	E07	300	200	1.0										

REGIONS OF SOLAR ACTIVITY

MAY 1976

MCMATH REGION 14198 CMP DATE 5.1

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	4	14198	S33	E08	299	100	1.5										

MCMATH REGION 14195 CMP DATE 5.8

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	2	14195	N10	E45	288	200	2.0	19681	N09	E42	285	BF					
76	5								19681	N09	E39	288	(B)	2				
76	5	3	14195	N10	E32	288	300	2.5	19681	N09	E28	290	BP		B	10	4	BXI
76	5	4	14195	N09	E17	290	300	2.5	19681	N10	E14	291	(B)	2	B	10	7	BXO
76	5	5	14195	N10	E04	290	300	2.5		N09	W01				B	10	5	BXO
76	5	7	14195	N10	W25	291	300	2.5										
76	5	8	14195	N10	W38	292	300	2.5										
76	5	9	14195	N10	W52	293	300	1.5										
76	5	10	14195	N10	W64	292	300	1.0										
76	5	11	14195	N08	W80	294	300	1.0										

MCMATH REGION 14196 CMP DATE 8.3

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	3	14196	S01	E64	256	100	1.0										

MCMATH REGION 14204 CMP DATE 10.2

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	7	14204	S25	E34	232	100	1.5										

MCMATH REGION 14207 CMP DATE 10.6

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	12	14207	S53	W26	227	100	2.5										
76	5	13	14207	S52	W35	222	100	1.0										

MCMATH REGION 14203 CMP DATE 11.8 RETURN OF REGION 14161 ROTATION 3

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	5	14203	N02	E85	209	500	1.5		N01	E80				B	120	2	HSX
76	5	6								N03	E70				R	100	2	HSX
76	5	7	14203	N03	E57	209	1400	2.5	19682	N01	E51	210	(AP)	5	B	120	2	HSX
76	5	8	14203	N03	E44	210	1300	2.0	19682	N01	E42	210	(AP)	5	B	130	1	HSX
76	5	9	14203	N03	E30	211	1500	2.0	19682	N00	E28	211	(AP)	5	B	100	2	HRX
76	5	10	14203	N03	E17	211	1500	2.0	19682	N00	E15	211	(AP)	5	B	10	3	HSX
76	5								19683	N06	E22	204	A		B	0	1	AXX
76	5	11	14203	N03	E03	211	1500	2.5	19684	N03	E02	211	(B)	1				
76	5								19682	N00	E02	211	(AP)	5	B	120	2	HSX
76	5									N01	E16				B	10	3	HSX
76	5	12	14203	N03	W09	210	1300	2.5	19682	N00	W12	211	(AP)	5				
76	5	13	14203	N04	W22	209	1300	2.0	19682	N00	W26	212	(AP)	5	B	120	2	HSX
76	5	14	14203	N04	W36	209	1200	2.0	19682	N00	W38	211	(AP)	4	B	70	3	HSX
76	5	15							19687	S03	W53	213	(Y)	3	R	10	4	BXO
76	5								19682	N00	W52	212	(AP)	4	R	80	2	HSX
76	5	16	14203	N01	W67	213	1500	3.5	19682	N00	W66	212	(AP)	3	R	70	1	HSX
76	5								19687	S02	W66	212	(BY)	3	R	20	5	BXO
76	5	17							19687	S02	W79	212	(B)					
76	5								19682	N00	W78	211	(AP)	3	B	70	2	HSX

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MCMATH REGION 14208 CMP DATE 11.8

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	12	14208	N31	W09	210	100	1.5										

MCMATH REGION 14210 CMP DATE 12.9

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	13	14210	N20	W09	196	100	1.5										
76	5	14	14210	N20	W24	197	100	1.0										

MCMATH REGION 14205 CMP DATE 14.3 RETURN OF REGION 14178 ROTATION 2

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	8	14205	S05	E78	176	600	2.0										
76	5	9	14205	S05	E64	177	600	2.0										
76	5	10	14205	S05	E51	177	700	2.5										
76	5	11	14205	S05	E35	179	1000	2.5										
76	5	12	14205	S05	E23	178	900	2.0										
76	5	13	14205	S05	E10	177	700	2.0										
76	5	14	14205	S05	W04	177	500	2.0										
76	5	16	14205	S05	W33	179	400	1.5										
76	5	18	14205	S06	W55	177	400	1.0										
76	5	19	14205	S07	W70	179	300	1.0										

MCMATH REGION 14212 CMP DATE 15.4

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	14	14212	N10	E10	163	100	1.0		N10	E10				B	0	1	AXX
76	5	16	14212	N10	W19	165	100	1.0										

MCMATH REGION 14213 CMP DATE 16.1

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	14	14213	N26	E20	153	100	2.0										

MCMATH REGION 14219 CMP DATE 17.0

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	20	14219	N30	W46	142	100	1.0										

MCMATH REGION 14206 CMP DATE 17.3 RETURN OF REGION 14168 ROTATION 3

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
			CALCIUM PLAGE DATA						SUNSPOT DATA									
76	5	11	14206	N07	E78	136	800	2.0	19685	N06	E74	139	(AP)	1				
76	5	12	14206	N07	E67	134	1700	2.5	19685	N05	E59	140	(AP)	2				
76	5	13	14206	N07	E52	135	1300	2.0	19685	N05	E45	141	(AP)	2	B	10	1	AXX
76	5	14	14206	N07	E37	136	1100	2.0	19685	N05	E32	141	(AF)	2	B	0	1	AXX
76	5	15							19685	N06	E21	139	(BP)	1				
76	5	16	14206	N07	E08	138	800	2.0	19685	N08	E13	133	(B)	1	R	10	2	AXX
76	5	17							19685	N07	W07	140	(AP)	2				
76	5	18	14206	N07	W16	138	700	2.5										
76	5	19	14206	N07	W30	139	700	2.5										
76	5	20	14206	N07	W43	139	900	2.5										
76	5	21	14206	N07	W55	138	800	2.0										
76	5	22	14206	N07	W70	138	600	2.0										
76	5	23	14206	N07	W81	137	500	1.0										

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MCMATH REGION 14211 CMP DATE 19.7

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	13	14211	S11 E80	107	1000	2.5	19686	S10 E79	107	(BF)	2	B	10	1	AXX
76	5	14	14211	S11 E68	105	1800	2.5	19686	S10 E64	109	(BF)	2	B	0	1	BXO
76	5	15						19686	S10 E50	110	(AP)	2	R	10	1	AXX
76	5	16	14211	S11 E38	108	1400	3.0	19688	S16 E43	103	(BP	2				
76	5	17						19688	S15 E30	103	(BF)	2	B	0	1	AXX
76	5	18	14211	S11 E15	107	1400	3.0		S09 E12				B	0	5	AXX
76	5	19	14211	S12 E02	107	1200	3.0									
76	5	20	14211	S12 W11	107	1200	3.0									
76	5	21	14211	S12 W24	107	1200	3.0									
76	5	22	14211	S12 W39	107	1800	3.0									
76	5	23	14211	S13 W51	107	1500	3.0									
76	5	24	14211	S12 W65	108	1100	2.5									
76	5	25	14211	S12 W78	107	600	1.5									

MCMATH REGION 14214 CMP DATE 19.7

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	18	14214	N33 E16	106	100	1.5									

MCMATH REGION 14222 CMP DATE 20.0

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	21	14222	N20 W20	103	100	1.5									

MCMATH REGION 14216 CMP DATE 21.3

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	19	14216	S15 E24	85	100	2.0	19691	S16 E16	91	(AP)	1				

MCMATH REGION 14226 CMP DATE 21.4

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	26	14226	S19 W68	84	100	1.0									

MCMATH REGION 14217 CMP DATE 22.6

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	19	14217	S20 E40	69	200	2.0	19692	S19 E38	69	(AP)	1				
76	5	20	14217	S20 E28	68	300	2.0									
76	5	21	14217	S20 E15	68	300	2.0									
76	5	22	14217	S20 E01	67	100	1.5									
76	5	23	14217	S20 W11	67	100	1.0									
76	5	24	14217	S22 W26	69	200	1.5									

MCMATH REGION 14224 CMP DATE 22.7

			CALCIUM PLAGE DATA					SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	23	14224	N05 W10	66	100	1.0									
76	5	24	14224	N05 W23	66	100	1.0									

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MCMATH REGION 14228 CMP DATE 23.2

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	27	14228	S24	W56	59	100	1.5										

MCMATH REGION 14227 CMP DATE 23.3

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	27	14227	N26	W55	58	200	2.5										

MCMATH REGION 14220 CMP DATE 23.8

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	21	14220	N06	E31	52	200	2.0										

MCMATH REGION 14215 CMP DATE 23.9 RETURN OF REGION 14179 ROTATION 4

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	17							19689	S07	E80	53	(AF)	2				
76	5	18	14215	S07	E75	47	2000	2.0	19689	S08	E65	53	(AP)	2	B	10	1	AXX
76	5									S07	E69				B	10	1	AXX
76	5								19690	S09	E81	37	A					
76	5	19	14215	S07	E62	47	2400	2.0	19689	S07	E52	55	(A)	2	B	20	1	AXX
76	5								19690	S09	E68	39	(AF)	2	B	10	1	AXX
76	5	20	14215	S07	E49	47	2400	2.0	19689	S07	E36	56	(A)	1	B	10	2	AXX
76	5								19690	S08	E53	39	(AF)	2	B	10	1	AXX
76	5	21	14215	S07	E36	47	2400	2.5	19690	S08	E41	40	(AF)	2	R	10	1	AXX
76	5									S07	E27				R	0	1	AXX
76	5	22	14215	S08	E21	47	1900	2.5	19690	S09	E29	39	(AF)	2	R	20	2	CRO
76	5									S08	E43				R	10	1	AXX
76	5	23	14215	S08	E06	50	1900	2.5	19689	S09	W01	56	(A)	2	B	10	1	AXX
76	5									S08	W02				B	10	1	AXX
76	5								19690	S08	E15	40	(AF)	2				
76	5	24	14215	S09	W08	51	2[illegible]00	2.5	19689	S09	W14	56	(A)	2	B	10	1	AXX
76	5	25	14215	S09	W22	51	1800	2.5	19690	S08	W12	40	AF					
76	5	26	14215	S09	W35	51	2000	2.5	19690	S08	W23	39	(AF)	2	R	10	1	AXX
76	5	27	14215	S09	W48	51	1700	2.5										
76	5	28	14215	S09	W60	50	1700	2.0										
76	5	29	14215	S08	W77	50	1100	1.5										
76	5	30	14215	S08	W81	45	600	1.0										

MCMATH REGION 14218 CMP DATE 24.5

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	19	14218	S28	E66	43	100	1.5										

MCMATH REGION 14229 CMP DATE 25.9

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	28	14229	N23	W35	25	200	2.0										
76	5	29	14229	N24	W50	23	100	2.0										

MCMATH REGION 14239 CMP DATE 26.9

CALCIUM PLAGE DATA / SUNSPOT DATA

YR	MO	DA	MC NO.	LAT	CMD	L	AREA	INT	MW NO.	LAT	CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	31	14239	N02	W63	12	100	1.5										

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MCMATH REGION 14223 CMP DATE 27.0

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	22	14223	N06 E59	9	100	2.0									

MCMATH REGION 14225 CMP DATE 27.8

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	25	14225	S35 E29	0	200	1.5									

MCMATH REGION 14243 CMP DATE 27.9

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	6	1	14243	S27 W26		200	1.0									
76	6	2	14243	S27 W36		100	1.0									

MCMATH REGION 14232 CMP DATE 28.8

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	29	14232	N03 W14	347	100	2.0									
76	5	30	14232	N04 W25	349	100	1.5									

MCMATH REGION 14233 CMP DATE 29.4

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	29	14233	S05 W06	339	100	2.0									

MCMATH REGION 14234 CMP DATE 29.5

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	29	14234	S31 W05	338	100	2.0									

MCMATH REGION 14242 CMP DATE 30.7

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	6	1	14242	N03 W63		100	1.5									

MCMATH REGION 14230 CMP DATE 31.3

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	28	14230	N32 E36	314	100	2.0									

MCMATH REGION 14235 CMP DATE 31.3

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
76	5	29	14235	S18 E19	314	100	2.0									

Each table above: columns YR–INT are CALCIUM PLAGE DATA; columns MW NO.–CLASS are SUNSPOT DATA.

Note: Region 14211 is new plage that has developed near the location of 14171 and 14184 of the previous rotation.
No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on May 6, 15 and 17, 1976.
No sunspot observations were made at Mt. Wilson Observatory on May 5 and 6, 1976.

DAILY CALCIUM PLAGE INDEX

MAY 1976

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
76	5	1	6.2	76	5	11	6.1	76	5	21	9.9
76	5	2	4.6	76	5	12	6.6	76	5	22	9.0
76	5	3	2.8	76	5	13	5.8	76	5	23	7.6
76	5	4	1.7	76	5	14	6.5	76	5	24	7.5
76	5	5	1.5	76	5	15	*	76	5	25	4.5
76	5	6	*	76	5	16	7.3	76	5	26	4.0
76	5	7	2.6	76	5	17	*	76	5	27	3.1
76	5	8	2.6	76	5	18	6.9	76	5	28	2.1
76	5	9	3.3	76	5	19	7.7	76	5	29	1.2
76	5	10	4.0	76	5	20	8.7	76	5	30	0.4
76	5	31	0.2					76	5	31	*

* NO OBSERVATIONS

SUDDEN IONOSPHERIC DISTURBANCES

MAY 1976

DAY	UNIVERSAL TIME START	END	MAX	IMP	WIDE SPREAD INDEX	NUMBER OF STATION REPORTS BY TYPE SWF	SCNA	SEA	SPA	LF-SPA	SES	SFD	KNOWN FLARE	McMATH REGION
01	2042	2043	2042	1-	1							1	2042	14179
01	2141	0112	2222	1	5	1			1		8		2142E	14179
02	2031	2209	2040	1	5	1		1	1		5		NF	
02	2104	2106	2105	1-	1							1	*	
16	0602	0732	0613	1-	5	2			2		1		0602	14203
17	0218	0338	0237	1-	1				1				0225E	14215
23	1137	1215	1147	1-	1						1		1137	14215

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT) and STATION
01-03	0000-2400 A30
01-05	0000-2400 A29
01-07	0000-2400 A36
01	0000-2400 A4, 2002-2104 UM (10 kHz)
02	0000-2400 A4, 0420-0505 UM (10 kHz)
04	0015-0130 UM (13 kHz), 1955-2111 UM (10 kHz)
05	1950-2055 UM (10 kHz)
06	1955-2007 UM (10 kHz)
07	0000-2400 TN, 0234-0430 UM (10 kHz), 1537-1542 TM, 1948-2110 UM (10 kHz)
08	0000-2400 TN
10	0255-0634 UM (10 kHz)
11	1326-1340 TM
12	0000-0220 UM (10 kHz), 0505-0638 UM (10 kHz), 1951-2144 UM (10 kHz)
13	0500-0617 UM (10 kHz), 1945-2100 UM (10 kHz)
14	1107-1329 UM (13 kHz), 1115-1329 UM (10 kHz), 1945-2110 UM (10 kHz)
16-18	0000-2400 A28
16	0000-2400 A30
17	0000-2400 TN, 1936-2104 UM (10 kHz)
18	0000-2400 TN, 2205-2320 UM (10 kHz)
19	0252-0533 UM (10 kHz), 1320-1540 UM (10 kHz), 1953-2110 UM (10 kHz)
20-22	0000-2400 A30
20	0000-0355 UM (10 kHz), 1946-2210 UM (10 kHz)
21	1950-2117 UM (10 kHz)
22	0335-0430 UM (10 kHz), 1950-2207 UM (10 kHz), 2136-2320 UM (10 kHz)
23	0530-0630 UM (10 kHz)
24	1942-2207 UM (10 kHz)
25	0045-0215 UM (10 kHz), 0315-0503 UM (10 kHz), 0910-0950 TM, 1938-2143 UM (10 kHz)
26	0400-0615 UM (10 kHz)
27-31	0000-2400 A4
27	0121-0246 UM (10 kHz), 0314-0440 UM (10 kHz) 1845-2258 UM (10 kHz)
28-30	0000-2400 A36
28	1946-2317 UM (10 kHz), 2044-2110 TM
29	1935-2239 UM (10 kHz), 2309-2400 TM
30	0000-2400 A32, 0000-0429 TM, 0420-0530 UM (10 kHz), 1945-2127 UM (10 kHz), 2145-2325 UM (10 kHz)
31	0000-2400 A32, 0255-0440 UM (10 kHz)

STATIONS REPORTING FOR MAY 1976

AAVSO (A1, A4, A19, A21, A28, A29, A30, A31, A34, A35, A37, A40) (SEA) (A1, A26, A31, A32, A36) (SEA) (A31) (SWF)
AREQUIPA (AQ) (SPA)
DARMSTADT (DA) (SWF)
DEBRE ZEIT (DE) (SPA)
HAWAII (HA) (SFD)
HERSTMONCEUX (HC) (SEA)
HIRAISO (HI) SWF)
HOBART (TA) (SEA)
HUANCAYO (HU) (SWF)
INUBO (IN) (SPA)
KASUAGE (KA) (SPA)
MCMATH (MC) (SWF, SCNA)
PANSKA VES (PU) (SWF, SES)
PRESTON (LO) (SEA)
SAO PAULO (UM) (SES, SPA)
SOFIA (SF) (SES)
ST CLOUD (SC) (SES)
TABLE MOUNTAIN (TM) (SPA, LF-SPA)
TORINO (TN) (SPA)
UPICE (UI) (SEA)

SID's BY McMATH REGION

MAY 1976

DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
REGION																															
79	2																														
03																1	1														
15																							1								
X-RAY																															
UNKNOWN		1																													
NO FP		1																													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
01	0000	0200	BOUL				0000	0100	2	0000	0110	2	IV
			CULG				0000	0729					IIIN,W
			CULG	0000	0025	1	0000	0055	1				IV
	0000	0729	CULG				0000	0729					IN,W
			BOUL				0003.6	0004.0	2	0003.6	0004.0	2	III
			CULG				0003	0004.5	1	0003	0004	1	IIIG
			CULG				0033	0034	1	0033	0034	1	IIIG
			CULG	0150	0152	1	0148.5	0152	2	0144	0152	2	IIIGG
			CULG				0351	0351.5	2				IIIG
	0000	1010	MANI							0412.1	0412.3	3	III
			CULG	0412	0413	1	0412	0413	2	0412	0412.5	2	IIIG
	0449	1818	DURN										
			CULG	0652.5	0653	1	0652	0654	1				IIIG
	0431	1723	WEIS				0653.0	0653.4	1				IIIG
			WEIS				0657.9	0658.1	1				IIIB
	0942	2339	SGMR										
	2137	2400	MANI										
	2029	2400	CULG	2157	2200	1	2157	2204	1				IIIGG
			CULG	2200	2232	1	2205	2400	1				IV
			BOUL				2203.3	2203.5	1				III
			BOUL				2205	2400	1				IV
			CULG				2206	2217	1				II
	1247	2245	HARV				2209	2216	2				IV
			CULG				2228.5	2231	2				IIIG
			BOUL				2229.0	2230.2	1				IIIG
			HARV				2229	2230	2	2229	2230	1	IIIG
02	0000	0729	CULG				0000	0020	1				IV
	0000	1010	MANI										
	0449	1820	DURN	0628.3	0628.7	1							IIIG
			CULG				0629						IIIB,W
			DURN	0651.6	0652.4	1							IIIGG
	1230	1630	BOUL										
	0941	2340	SGMR							1850.1	1850.5	1	III
	1246	2245	HARV				1850		1	1850		1	IIIB
	2137	2400	MANI										
	2230	2400	BOUL				2306.4	2306.7	1	2306.4	2306.7	1	III
	2029	2400	CULG				2306	2307	1				IIIG,U
03	0000	1010	MANI										
	0000	0200	BOUL										
	0000	0729	CULG				0104.5		1				IIIB
			CULG				0436		1				IIIB
	0447	1812	DURN										
	0658	0951	WEIS										
	0939	2342	SGMR										
	0955	1000	WEIS										
	1008	1440	WEIS										
	1200	2400	BOUL										
	1247	2245	HARV										
	1445	1452	WEIS										
	1458	1758	WEIS										
	2029	2400	CULG										
	2137	2400	MANI										
04	0000	1011	MANI										
	0000	0729	CULG										
	0000	0200	BOUL										
	0447	1823	DURN										
	0641	1041	WEIS										
	1046	1100	WEIS										
	1102	1447	WEIS										
	0938	2343	SGMR							1156.0	2343.0	1	CONT
	1247	2245	HARV										
	1413	2400	BOUL										
	1454	1528	WEIS										
	1535	1759	WEIS										
	2039	2400	CULG										
	2136	2400	MANI										
05	0000	1011	MANI										

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
05	0000	0724	CULG										
	0000	0200	BOUL										
	0436	0800	WEIS										
	0446	1825	DURN										
	0808	1300	WEIS										
	0937	2344	SGMR										
	1200	2400	BOUL										
	1247	2245	HARV										
	1325	1337	WEIS										
	1350	1358	WEIS										
	1415	1801	WEIS										
	2029	2400	CULG										
	2200	2400	MANI										
06	0000	1011	MANI										
	0000	0200	BOUL										
	0000	0729	CULG				0025						IIIB,W
			CULG				0154						IIIB,W
			CULG				0239		1				IIIB
	0435	0811	WEIS										
	0444	1826	DURN										
			CULG				0458		1				IIIB
	0815	1802	WEIS										
	0935	2345	SGMR										
	1200	2400	BOUL										
	1247	2245	HARV										
	2029	2400	CULG										
	2135	2400	MANI										
07	0000	1011	MANI										
	0000	0200	BOUL										
	0000	0728	CULG				0217						IIIG,U,W
	0434	1518	WEIS										
	0444	0910	DURN										
			CULG				0628.5	0630	1				IIIG,U
	0934	2346	SGMR										
	1200	2400	BOUL										
	1721	1830	WEIS										
	1247	2245	HARV				1847	1849	1	1847	1849	1	IIIG,V
	2135	2400	MANI										
	2029	2400	CULG				2312	2313	1				IIIG,U
08	0000	0728	CULG										
	0000	1011	MANI										
	0000	0200	BOUL										
	0733	1804	WEIS										
	0933	2347	SGMR										
	1200	2400	BOUL										
	1247	2245	HARV										
	2028	2400	CULG				2112		1				IIIB
	2134	2400	MANI										
			CULG				2337		1				IIIB
09	0000	0728	CULG										
	0000	1011	MANI										
	0000	0200	BOUL										
	0431	1024	WEIS										
	0932	2348	SGMR										
	1200	2400	BOUL										
	1247	2245	HARV										
	1601	1832	DURN										
	2133	2400	MANI										
	2028	2400	CULG				2207						IIIB,W
10	0000	1011	MANI										
	0000	0200	BOUL										
	0000	0722	CULG				0004.5	0005	1				IIIG
			CULG				0042	0046	1				IIIG
	0441	1833	DURN										
	0822	1239	WEIS										

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
10	0931	2349	SGMR										
	1200	2400	BOUL										
	1247	2245	HARV										
	1340	1400	WEIS										
	1425	1436	WEIS										
	1520	1807	WEIS										
	2029	2400	CULG				2128	2130					IIIG,W
	2133	2400	MANI										
11	0000	1011	MANI										
	0000	0200	BOUL										
	0429	1126	WEIS										
	0440	1834	DURN										
	0000	0728	CULG				0709						IIIB,W
	0930	2350	SGMR										
	1132	1458	WEIS										
	1247	2245	HARV										
	1627	1808	WEIS										
	1130	2400	BOUL				1936	2145	1				IS
			BOUL				2019.7	2020.0	1				III
			BCUL				2033.1	2033.9	1				III
	2029	2400	CULG				2102	2103					IIIG,W
	2133	2400	MANI										
12	0000	0728	CULG				0114.5	0653					IIIN,W
	0000	0553	MANI							0147.3	0147.6	2	III
	0000	0200	BOUL				0147.4	0147.8	1	0147.4	0147.8	1	III
			CULG				0147	0148	2				IIIG,V
			CULG				0211	0212	2				IIIG,U
			CULG				0242	0243					IIIG,W
			MANI							0244.1	0245.8	3	III
			CULG				0244	0246	2	0244	0245	2	IIIGG,V
			CULG				0403	0404					IIIG,W
	0603	1011	MANI										
			CULG				0629	0651	1				IIIG
	0427	1808	WEIS				0950.8	0951.8	1				IIIG
			WEIS				1202.6	1203.4	2				IIIG
	1130	2400	BOUL				1202.6	1203.2	2	1202.6	1203.2	2	IIIG
	0929	2351	SGMR							1202.7	1203.4	2	III
			BOUL				1236.0	1236.4	2				IIIG
			SGMR							1236.2	1247.5	1	IIIG
			BOUL				1239.4	1241.2	1	1239.4	1241.2	1	IIIG
	0439	1835	DURN	1246.5	1246.7	1	1246.5	1246.7	1				IIIG
			BOUL				1246.6	1247.2	1	1246.6	1247.2	1	IIIG
			SGMR							1300.9	1301.2	1	III
			BOUL				1328.8	1333.4	2	1328.8	1333.4	2	IIIG
			WEIS				1330.7	1331.3	2				IIIG
	1247	2255	HARV				1331		1				IIIB
			WEIS				1333.4	1333.5	1				IIIB
			BOUL				1341.4	1343.8	1	1341.4	1343.8	1	IIIG
			BOUL				1444.5	1444.9	1				IIIG
			BOUL				1512.5	1512.7	1				III
			BOUL				1813.4	1817.8	1				IIIG
			HARV				1834		2	1834		2	IIIB
			BOUL				1838.2	1841.7	2	1838.2	1841.7	2	IIIG
			HARV				1838	1839	2				IIIG
			BOUL				2048.5	2048.6	1				III
			BOUL				2051.9	2052.0	1	2051.9	2052.0	1	III
			BOUL				2054.3	2056.1	3	2054.3	2056.1	3	IIIG
			SGMR							2054.4	2056.1	2	V
	2028	2400	CULG	2054	2113	1	2052	2116.5	2	2054	2056	1	IIIG
			HARV				2054	2057	3	2054	2057	3	IIIGG
			SGMR							2105.4	2105.6	1	III
			HARV				2105		2	2105		2	IIIB
			BOUL				2111.1	2113.6	2	2111.1	2113.6	2	III
			SGMR							2111.6	2111.8	1	III
			HARV				2111	2113	2	2111	2113	2	IIIG
	2132	2400	MANI										
13	0000	0728	CULG				0000	0613	1				IIIN

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
13	0000	0200	BOUL				0003.7	0003.9	1	0003.7	0003.9	1	III
			CULG				0303		1				IIIB
			BOUL				0120.3	0120.7	1	0120.3	0120.7	1	III
	0000	0408	MANI							0120.5	0120.7	1	III
			CULG				0120		2				IIIB
			BOUL				0124.2	0124.3	1				III
			BOUL				0134.3	0135.0	1				III
			CULG				0234	0235	1				IIIG
	0426	0915	WEIS				0430.1	0431.3					IIIG
			CULG				0430	0436.5	2	0430	0430.5	1	IIIGG
	0437	0601	DURN										
	0458	1011	MANI										
	0612	1835	DURN										
	1130	2400	BOUL				1401.7	1402.2	1				III
	0922	1810	WEIS				1419.2	1419.3	2				IIIG
			BOUL				1428.1	1429.6	2				IIIG
			WEIS				1429.1	1429.3	2				IIIG
	1247	2250	HARV				1429		2				IIIB
	0928	2352	SGMR							1430.2	1430.8	1	IIIG
			BOUL				1739.9	1740.0	1				III
			BOUL				1804.3	1804.5	1				III
			HARV				1804		2				IIIB
	2028	2400	CULG										
	2132	2400	MANI										
14	0000	1011	MANI										
	0000	0728	CULG										
	0000	0230	BOUL										
	0409	1530	WEIS										
	0926	2353	SGMR										
	1130	2400	BOUL										
	1247	2230	HARV										
	0435	1833	DURN	1502	1739	1	1502	1739	1				IC,N
	2028	2400	CULG				2109	2322					IIIN,W
	2132	2400	MANI										
15	0000	0525	MANI										
	0000	0230	BOUL										
	0000	0723	CULG				0122.5		1				IIIB
			CULG				0243.5	0246.5	1				IIIG
	0434	1834	DURN	0531.2	0531.4	1	0531.2	0532.2	1				IIIG
			CULG				0557		1				IIIB
	0558	1011	MANI										
			DURN	0603.9	1659	1	0603.9	0943	1				IC,N
			DURN	0715.1	0715.9	1	0715.1	0715.9	1				
	0925	2354	SGMR										
	1130	2400	BOUL										
	1247	2245	HARV										
	2029	2400	CULG										
	2132	2400	MANI										
16	0000	0230	BOUL										
	0000	0728	CULG				0247	0248	1				IIIG
			CULG				0537		1				IIIB
			CULG				0538		1				IIIB
			CULG				0546	0547	1				IIIG
			CULG				0602	0612	1	0604	0605	1	IIIGG,V
	0434	1836	DURN	0603.6	0603.8	3	0603.6	0603.7	1				IIIG
	0000	1011	MANI							0604.4	0605.9	3	III
			CULG				0608	0620					II, W
			CULG				0619	0623	1				IIIG
			CULG				0627	0628	1				IIIG
			DURN	0825.0	0830.0	1							DCIM
	1247	2245	HARV										
	1130	2400	BOUL				1502	1555	1				IS
			BOUL				1507	1555	1	1507	1555	1	CONT
	0924	2355	SGMR							1524.2	1525.1	1	V
	2131	2400	MANI										
	2029	2400	CULG				2331.5						IIIB,W,RS
17	0000	0728	CULG										

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
17	0000	0230	BOUL										
	0000	1011	MANI										
	0433	0518	DURN										
	0657	1815	WEIS										
	0924	2356	SGMR										
	1010	1836	DURN										
	1130	2400	BOUL										
	1247	2250	HARV										
	2028	2400	CULG										
	2131	2400	MANI										
18	0000	1011	MANI										
	0000	0230	BOUL										
	0420	1322	WEIS				0517.6	0518.4	1				IIIG
	0000	0728	CULG				0518	0519	1	0518	0518.5	1	IIIG
			CULG				0607	0608	1				IIIG
	0433	1834	DURN	0719.3	0719.4	1	0719.3	0719.4	2				IIIG
			DURN	0846.3	0946.9		0846.3	0846.9					IIIG,W
			DURN				1231.3	1231.3	2				III
	1247	2245	HARV										
	1130	2400	BOUL				1258.5	1258.7	1	1258.5	1258.7	1	III
			DURN	1258.6	1300.5	1	1258.5	1300.6	3				IIIG
			BOUL				1311.3	1311.5	1				III
	0922	2357	SGMR							1311.4	1311.6	1	V
			DURN	1311.4	1311.4	3	1311.4	1311.4	3				III
			DURN	1356.8	1357.2	3							IIIG
			DURN	1401.5	1401.6	2							III,RS
	1626	1815	WEIS										
	2028	2400	CULG										
	2130	2400	MANI										
19	0000	0806	MANI										
	0000	0728	CULG										
	0000	0230	BOUL										
	0419	1815	WEIS										
	0433	1836	DURN										
	0827	1011	MANI										
	0922	2358	SGMR										
	1130	2400	BOUL										
	1247	2245	HARV										
	2029	2400	CULG				2126.5	2127.5					IIIG,W,U
	2130	2400	MANI										
20	0000	1011	MANI										
	0000	0728	CULG										
	0000	0230	BOUL										
	0418	1815	WEIS										
	0433	0705	DURN										
	0921	2359	SGMR										
	1130	2400	BOUL										
	1230	2305	HARV										
	1627	1836	DURN										
	2029	2200	CULG										
	2129	2400	MANI										
	2209	2400	CULG										
21	0000	0728	CULG										
	0000	1011	MANI										
	0000	0230	BOUL										
	0417	1518	WEIS										
	0433	1837	DURN										
	0920	2400	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	2129	2400	MANI										
	2029	2400	CULG				2134	2136.5	1				IIIG
22	0000	0728	CULG										
	0000	1011	MANI										
	1049	1820	WEIS										

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
				DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
22	1130	2400	BOUL										
	1230	2250	HARV				1758	1800	3	1759	1800	1	IIIG
	0920	2401	SGMR							1759.2	1759.6	1	III
			SGMR							1803.6	1804.1	1	III
			HARV				1803	1804	2	1803	1804	1	IIIG
	2200	2400	MANI										
	2029	2400	CULG				2313.5	2319	1				IIIGG
23	0000	0728	CULG										
	0000	1011	MANI										
	0407	1624	WEIS										
	0918	2402	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	2129	2400	MANI										
	2029	2400	CULG				2214						IIIB,W
24	0000	0728	CULG										
	0000	1011	MANI										
	0000	0230	BOUL										
	0918	2403	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	1331	1345	WEIS										
	1630	1815	WEIS										
	2029	2400	CULG										
	2129	2400	MANI										
25	0000	1011	MANI										
	0000	0716	CULG										
	0000	0230	BOUL										
	0411	1315	WEIS										
	0917	2404	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	1320	1824	WEIS										
	2129	2400	MANI										
	2029	2400	CULG	2316	2316.5		2316	2316.5					IIIG,W
26	0000	0729	CULG										
	0000	1011	MANI										
	0000	0230	BOUL										
	0413	1824	WEIS										
	0916	2405	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	2029	2400	CULG										
	2129	2400	MANI										
27	0000	1011	MANI										
	0000	0729	CULG										
	0000	0230	BOUL										
	0411	0505	WEIS										
	0915	2406	SGMR										
	1130	1930	BOUL										
	1217	1840	DURN										
	1230	2250	HARV										
	2029	2400	CULG										
	2129	2400	MANI										
28	0000	1012	MANI										
	0000	0729	CULG										
	0430	1842	DURN										
	0713	1726	WEIS										
	0915	2407	SGMR										
	1130	1300	BOUL										
	1230	2245	HARV										
	1600	1930	BOUL										
	2029	2400	CULG										
	2129	2400	MANI										

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MAY 1976

MAY 1976	TIMES OF OBSERVATION START UT	TIMES OF OBSERVATION END UT	STATION	DECIMETRIC BAND START UT	DECIMETRIC BAND END UT	DECIMETRIC BAND INT	METRIC BAND START UT	METRIC BAND END UT	METRIC BAND INT	DEKAMETRIC BAND START UT	DEKAMETRIC BAND END UT	DEKAMETRIC BAND INT	SPECTRAL TYPE
29	0000	1012	MANI										
	0000	0729	CULG				0123.5						IIIB,W
	0409	1308	WEIS										
	0430	1842	DURN										
	0914	2407	SGMR										
	1230	2245	HARV										
	1130	1930	BOUL				1300.7	1302.2	1	1300.7	1302.2	1	III
	2030	2400	CULG										
	2129	2400	MANI										
30	0000	1012	MANI										
	0000	0716	CULG										
	0000	0230	BOUL										
	0430	1842	DURN										
	0914	2408	SGMR										
	1230	2245	HARV										
	1130	2400	BOUL							1628.2	1628.7	1	IIIG
	2030	2400	CULG										
	2129	2400	MANI										
31	0000	1012	MANI										
	0000	0230	BOUL										
	0000	0730	CULG				0257.5	0300					IIIG,W
	0429	0628	DURN										
	0636	1842	DURN										
	0651	1625	WEIS										
	0913	2409	SGMR										
	1130	2400	BOUL										
	1230	2245	HARV										
	1641	1829	WEIS										
	2030	2400	CULG										
	2129	2400	MANI										

The symbols used in connection with the spectral type in describing the important bursts are as follows:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of bursts
C = Underlying continuum (particularly with type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III

RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
W = Weak
P = Pulsations
CONT = Continuum
UNCLF = Unclassified activity

SELECTED SOLAR EVENTS

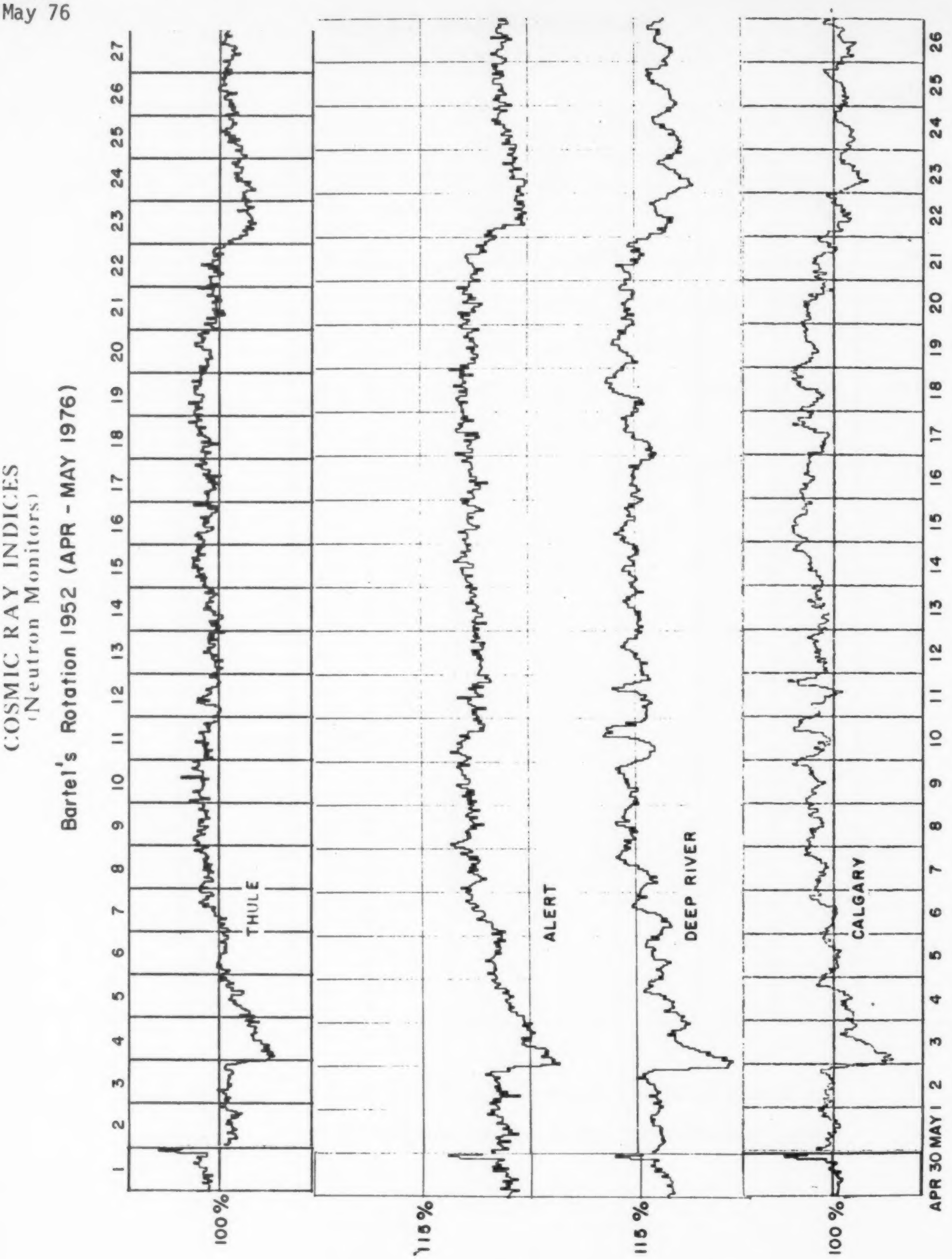
MAY 1976

Culgoora

UT Date 1976 MAY	HELIOGRAPH EVENT Start (UT)	End (UT)	Freq. (MHz)	Positions Central Dist. ($R_\odot$)	Position Angle (Deg.)	Polar-ization	Inten-sity (1-3)	Spectral Type	REMARKS
1	0148	0153	160	0.9	250	0	2	IIIGG	*
			80	1.2	260	0	3		
			43	1.5	250	-	3		
12	0147	0148	160	1.2	70	0	2	IIIG,V	*
			80	1.5	80	0	3		
			43	1.8	80	-	3		
13	0233	0235	160	1.2	70	0	3	IIIG	*
			80	1.3	70	0	3		
			43	1.6	70	-	3		
15	0243	0246	160	1.0	60	0	1	IIIG	Two events in succession at 80 MHz
			80	(1.1	40)	0	2		
				(0.9	240)				
16	0209	0210	160	1.1	230	0	3	IIIB	*
			80	1.1	230	0	3		
	0240	0241	160	0.7	60	0	3	IIIB	
			80	0.8	50	0	3		

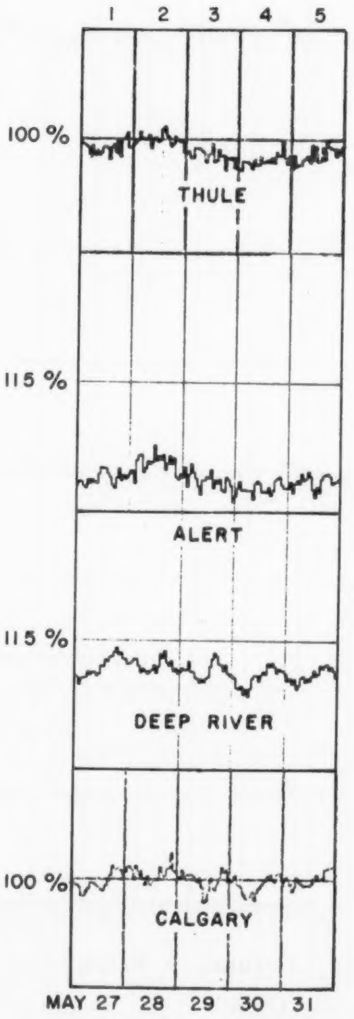
Days without Heliograph observations: ..Nil.......................................

* Other Type III's observed at same positions during day

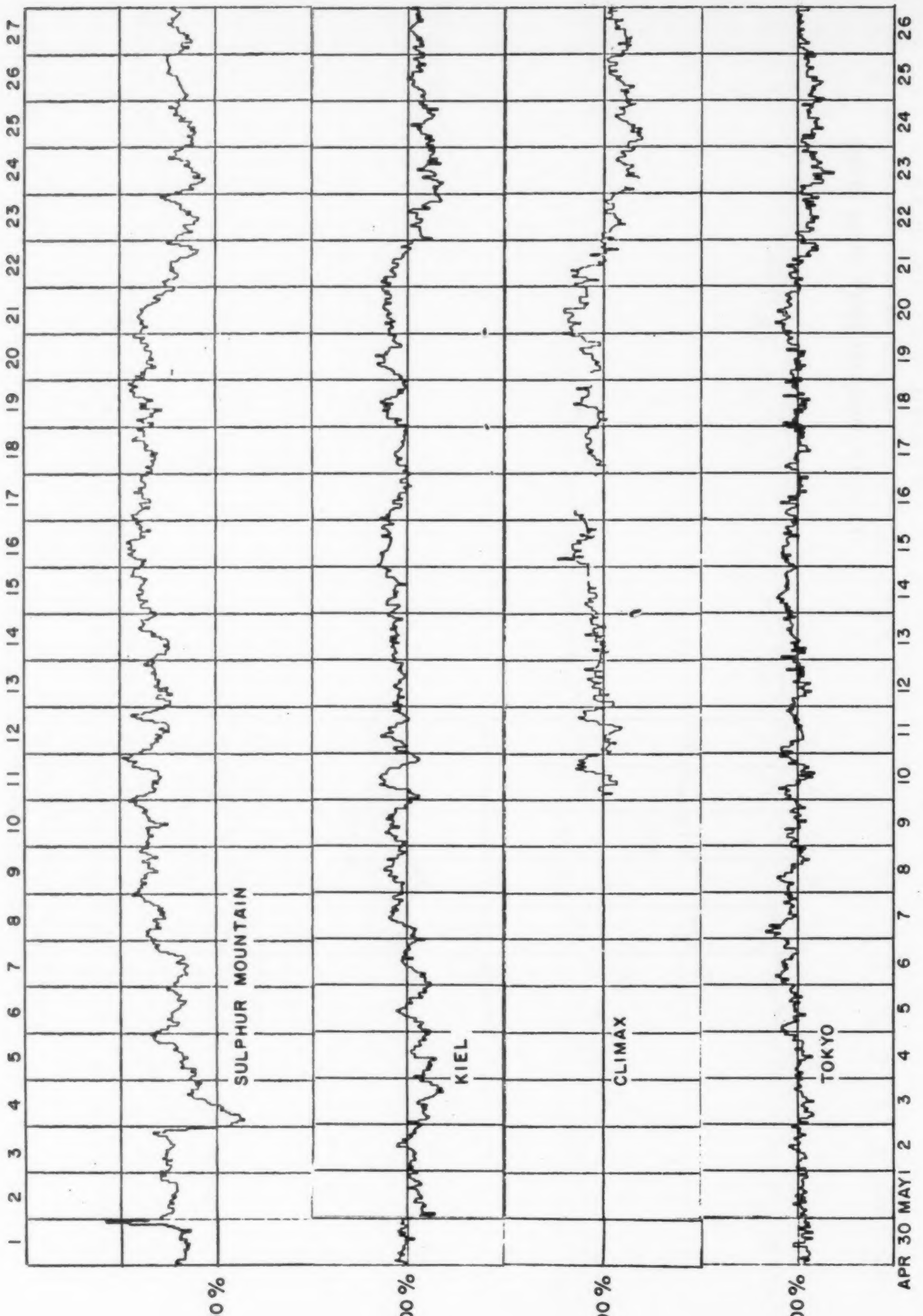

COSMIC RAY INDICES
(Neutron Monitors)
Bartel's Rotation 1952 (APR - MAY 1976)
THULE
ALERT
DEEP RIVER
CALGARY
100 %
115 %
115 %
100 %
APR 30 MAY 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

COSMIC RAY INDICES
(Neutron Monitors)

Bartel's Rotation 1953 (May 1976)

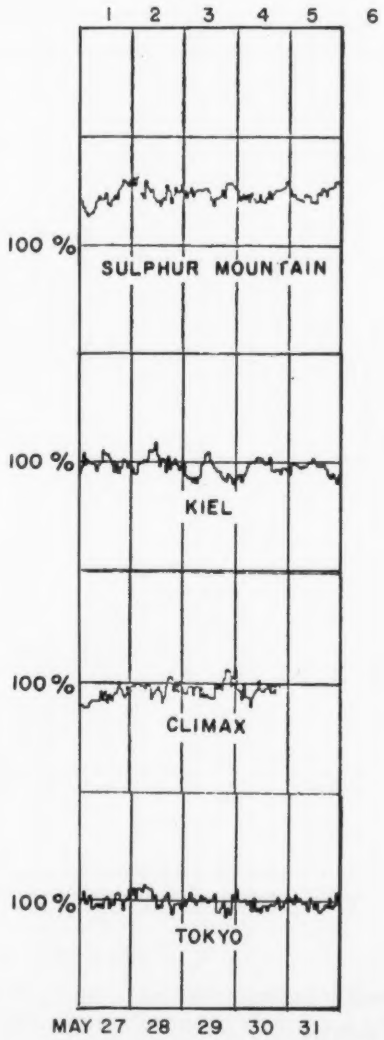


COSMIC RAY INDICES
(Neutron Monitors)
Bartel's Rotation 1952 (APR - MAY 1976)

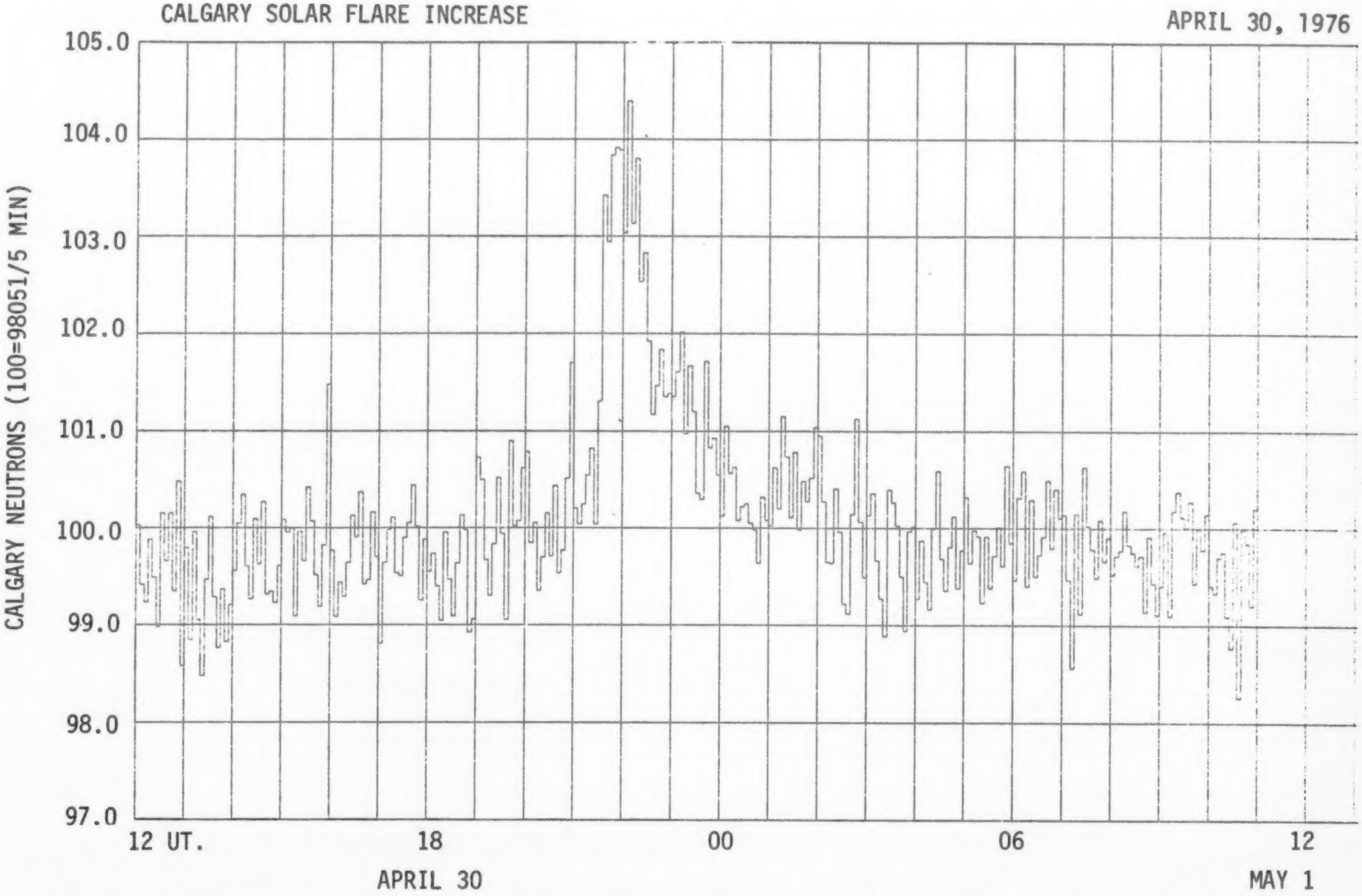


COSMIC RAY INDICES
(Neutron Monitors)

Bartel's Rotation 1953 (May 1976)

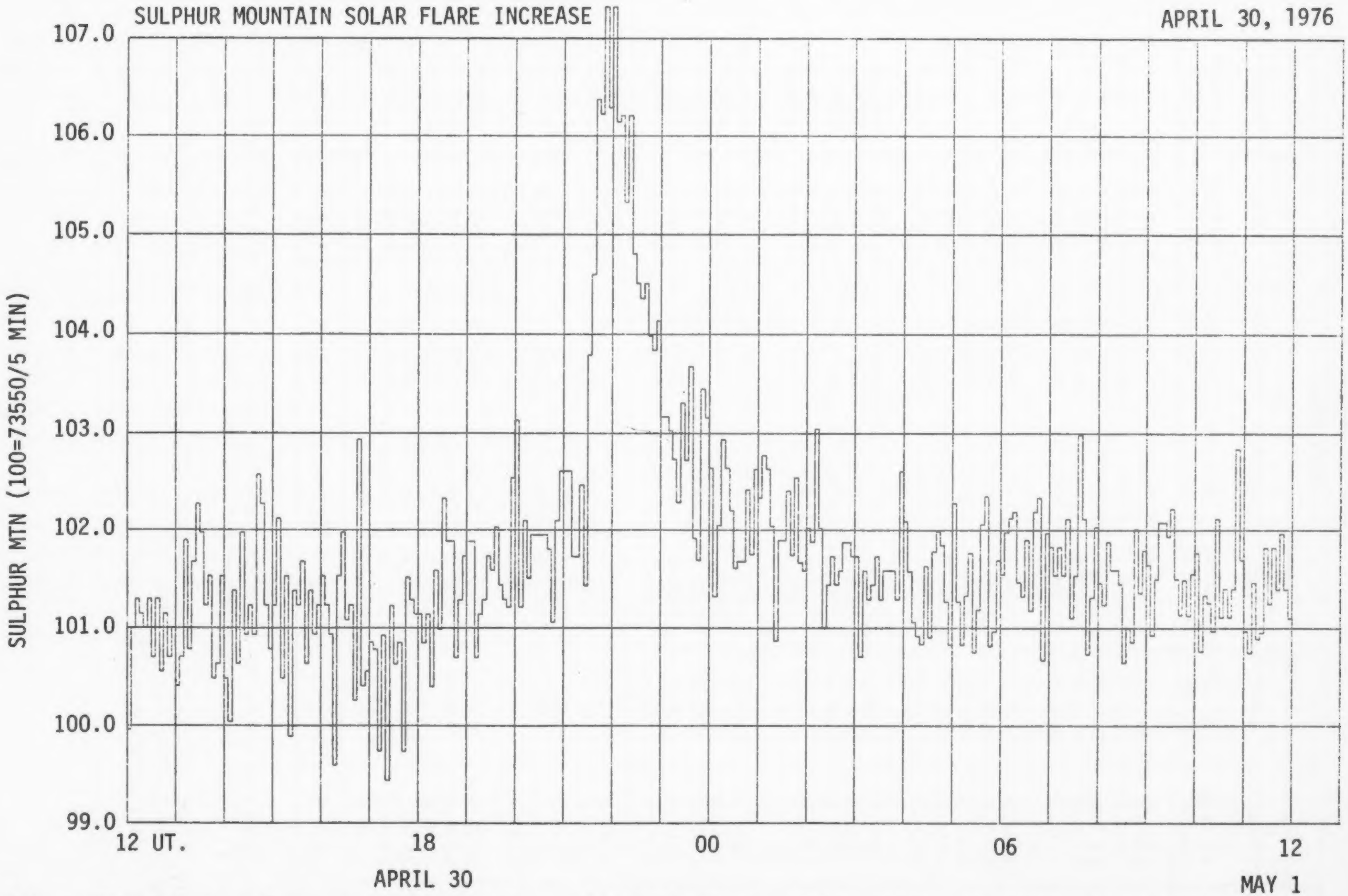


COSMIC RAY INDICES
(Neutron Monitors)



Five minute values are given for the period 1200 UT, April 30, 1976 to 1200 UT, May 1, 1976. The onset of the Forbush Decrease late on May 2, 1976 can be seen from the plot for the month of May 1976.

COSMIC RAY INDICES
(Neutron Monitors)



Note: Five minute values are given for the period 1200 UT, April 30, 1976 to 1200 UT, May 1, 1976. The onset of the Forbush Decrease late on May 2, 1976 can be seen from the plot for the month of May 1976.

COSMIC RAY INDICES

(Neutron Monitors)

MAY 1976

May 1976	THULE Average cts/hr	ALERT Average cts/hr	DEEP RIVER Average cts/hr	CALGARY Average cts/hr	SULPHUR MT Average cts/hr	KIEL Average cts/hr	CLIMAX Average cts/hr	TOKYO Average cts/hr
1	4550.9	7437.1	7017.2	11704.3	8977.2	6287.9	-- (0)	3531.2
2	4557.6	7442.0	7017.3	11699.4	8978.5	6310.9	-- (0)	3537.8
3	4479.6	7324.6	6910.5	11469.7	8780.9	6257.4	-- (0)	3529.3
4	4539.3	7410.0	6993.8	11634.0	8941.4	6272.8	-- (0)	3537.6
5	4570.8	7451.8	7018.2	11688.4	8959.2	6296.5	-- (0)	3548.3
6	4594.0	7492.3	7030.3	11725.1	8956.9	6303.6	-- (0)	3560.2
7	4613.3	7520.3	7071.5	11783.6	9051.4	6344.3	-- (0)	3563.2
8	4624.7	7533.0	7099.4	11804.7	9086.1	6359.2	-- (0)	3548.1
9	4630.5	7540.7	7096.0	11828.8	9078.4	6357.8	-- (0)	3544.5
10	4610.8	7534.0	7076.2	11811.2	9084.4	6349.1	4225.8	3545.2
11	4596.8	7506.2	7060.1	11774.8(22)	9045.2	6353.6	4215.5	3545.4
12	4593.9	7499.1	7074.7	11773.5	9024.7	6349.1	4223.7	3537.2
13	4595.5	7509.8	7076.2	11766.7	9038.6	6366.2	4226.3	3548.8
14	4629.1	7538.5	7084.5	11832.9	9101.9	6371.3	4243.3	3560.5
15	4613.2	7526.0	7097.7	11894.2	9121.3	6393.3	4264.1	3557.0
16	4608.7	7517.0	7069.5	11850.2	9103.0	6351.2	4256.1(14)	3544.0
17	4622.3	7535.1	7069.9	11801.6	9076.7	6341.7	4238.6	3539.7
18	4634.7	7548.6	7108.8	11858.9	9097.3	6365.5	4241.0	3541.4
19	4618.3	7521.0	7106.5	11842.7	9082.2	6380.5	4241.8	3545.2
20	4594.6	7529.4	7094.5	11805.3	9064.3	6389.0	4272.9	3558.9
21	4593.0	7503.0	7080.3	11756.4	8936.8	6357.0	4238.0	3534.1
22	4516.7	7391.1	6998.6	11650.1	8913.4	6273.5	4198.5	3520.1
23	4524.9	7381.7	6956.3	11571.7	8887.8(23)	6243.1	4165.3	3510.5
24	4545.5	7419.0	6976.3	11605.8	8902.4	6264.6	4160.6	3515.4
25	4563.2	7433.7	6996.5	11645.5	8947.2	6291.1	4183.7	3514.5
26	4558.9	7427.2	6999.3	11622.4	8926.5	6295.9	4181.1	3532.5
27	4564.5	7430.5	7012.3	11659.0	8951.7	6319.3	4185.6	3537.6
28	4580.9	7468.2	7016.3	11708.6	8979.5(23)	6324.4	4205.6	3544.7
29	4549.3	7426.0	7004.8	11671.5	8979.9	6294.1	4205.7	3537.8
30	4539.7	7409.0	6988.9	11650.3	8969.5	6308.4	4203.0	3535.9
31	4550.8	7426.0	6994.9	11682.4	8973.6	6305.9	-- (0)	3537.1
MEAN	4579.5	7472.0	7038.6	11728.2	9000.6	6325.1	4216.4	3540.1

( ) Number of hours for which data are available if less than 24. Number of Section Hours at Climax if sum of both sections is less than 40 hours.

Thule, Alert, Calgary, Sulphur Mountain, Kiel and Climax Scaling Factors = 100.
Deep River Scaling Factor = 300.
Tokyo Scaling Factor = 128.

GEOMAGNETIC ACTIVITY INDICES

MAY 1976

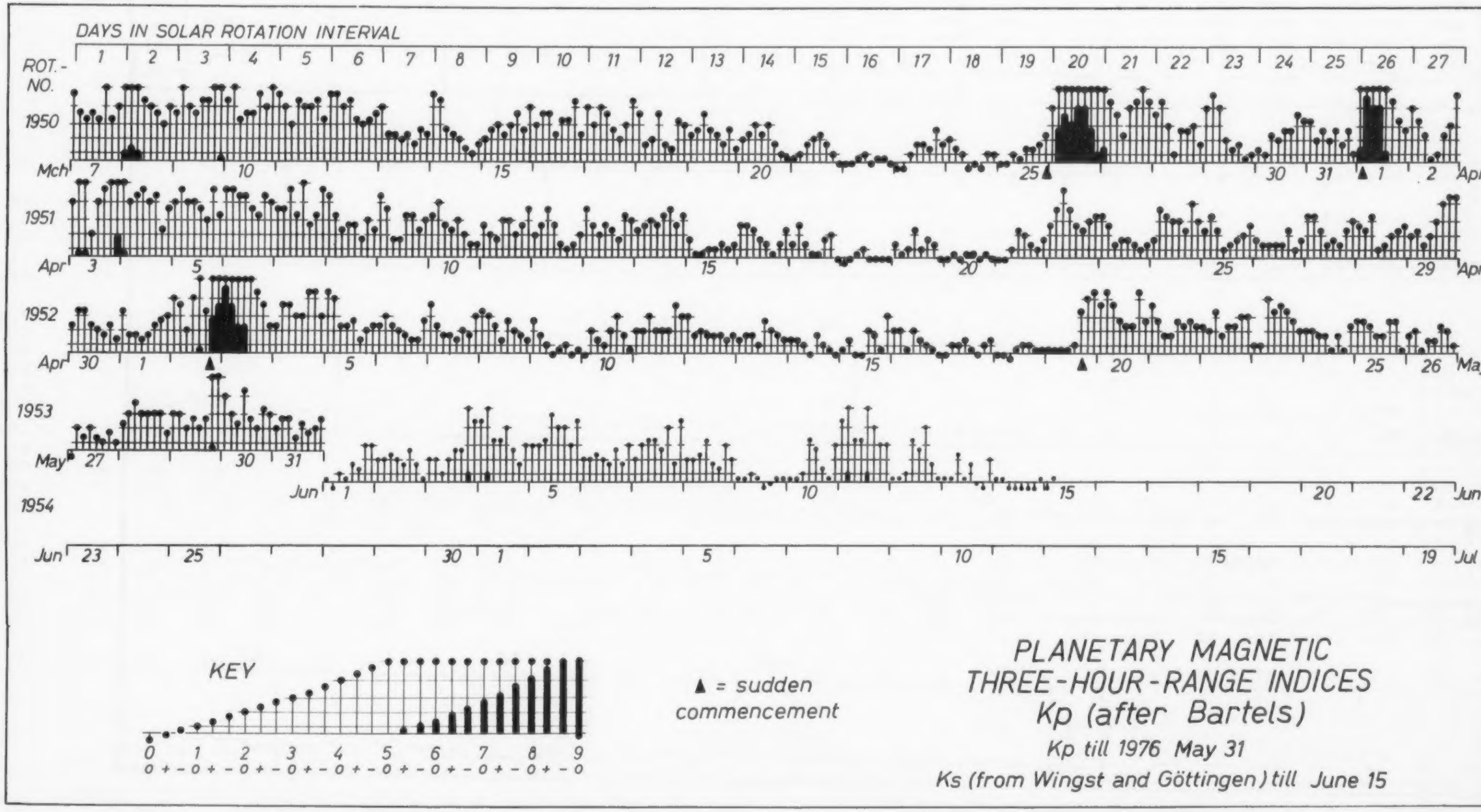
Day		Three-Hourly Indices Kp									Three-Hourly Indices Km								Ap	aa					Cp
		1	2	3	4	5	6	7	8	Sum	1	2	3	4	5	6	7	8		N	S	M			
1		3+	2-	2-	1+	2-	2+	3-	3	18-	3	2-	2	1+	2-	2+	2+	3	10	21	16	15	23		0.5
2	D	4	4-	2	4	5+	3+	7	8-	37	4	4-	2-	4	5-	3+	5+	6+	58	72	77	41	109		1.7
3	D	8+	8-	7-	7-	5	4+	4-	2+	45-	7	6+	6+	6	5-	4-	3	3-	94	105	107	167	44		1.9
4	D	2+	4-	4-	3	3	4+	4+	3	27+	2+	4-	4-	3	3-	4	3+	3	20	32	39	31	40		1.0
5		4+	4	2+	2+	3-	1+	2	2+	21+	5-	4	2	2+	2+	1+	3-	2+	14	23	27	32	18		0.8
6		2+	3	2+	2	2-	1+	1+	3-	17-	3-	3-	3-	3-	2	2-	2-	3-	8	18	16	18	17		0.5
7		4-	2+	2-	2-	1+	2	2-	3	17+	4-	2	2-	2-	2	2+	2-	3	10	25	16	20	22		0.5
8		3+	3	2+	1+	3-	2	2-	1+	18-	3	3-	3-	2-	3-	2-	2-	1+	10	22	11	20	13		0.5
9	QQ	3-	2-	1	0+	1-	1	0+	1-	8+	2+	2-	1+	0+	1-	1-	0+	1-	4	12	4	11	6	CC	0.2
10	Q	0+	2	1+	1	2	3	2-	1-	12	0+	2-	1+	2-	2	3	1	1-	6	14	15	10	19	K	0.3
11		2	2	3	2	2	2	4-	3	20-	2-	2	3-	2+	2+	2+	3+	3	11	21	19	17	24		0.6
12		3	2-	2	2-	2-	2-	1+	2-	15-	3-	2-	2-	2	2-	1+	1+	2	7	18	12	17	13		0.4
13		1+	2-	2-	1	3-	2	2-	1+	13+	1+	2	2-	1	2+	2-	1	1+	6	18	11	14	16	K	0.3
14	QQ	1+	1+	1	0+	2-	1	1-	0+	8-	1+	1	1+	0+	1	1-	0+	0+	4	9	4	8	6	CC	0.1
15	Q	1-	1+	0+	0+	2	2-	1-	3	10	1-	1	0+	1-	1+	1+	1	3	5	13	10	6	18	KK	0.2
16	QQ	2	2	1-	2	1+	1	1-	0+	10	2-	2-	1	2+	2-	1	1-	0+	5	16	7	16	7	CK	0.2
17	QQ	0+	1	1	1+	1-	0+	1	1+	7	1-	1	1	1+	1-	1-	1	1+	4	12	7	11	9	CC	0.1
18	QQ	0+	0+	0	1-	1	1	1-	1-	5-	0+	0+	0+	1-	1	1	1-	1-	3	8	4	5	7	CC	0.0
19		1-	1-	1-	1-	1	3+	4	4+	15+	1-	1-	1	1	1	3-	4-	4-	12	30	14	8	36		0.7
20	D	4-	4+	4-	3-	2+	2+	4+	3-	26	3+	4	4-	3-	2+	2+	4-	3-	19	31	28	31	29		1.0
21		4-	3-	2-	2-	3-	2+	3-	2+	20-	3+	2+	2+	2+	3-	3-	2	2+	11	27	20	20	27		0.6
22		2+	2	3+	2-	2+	2+	3	3	20	2	2	3	2-	2+	3-	3-	3-	11	25	25	21	30		0.6
23		1	1	4	3+	4-	3+	3-	2	21	1	1	4-	4-	3+	3-	2+	2	14	29	29	30	28		0.8
24	Q	2	2	2-	2-	1-	2-	1-	2+	13-	2	2-	2-	2-	1	1+	1-	2	6	13	12	14	11	C	0.3
25		3-	3-	2+	2-	2-	3-	3-	1-	17	2	2+	2	2+	2	3-	2	1-	9	25	14	19	21		0.5
26	Q	2-	2	1-	1+	1+	2+	2	1	12+	2	2	1-	1+	1+	2-	2-	1+	6	16	8	12	12	C	0.3
27	Q	0	2	1+	2	1+	1	2-	1	10+	0	2	1+	2-	1+	1	2-	1+	5	14	9	12	12	C	0.2
28		2+	3	4-	3	3	3	3	2-	23-	2	3	3+	3+	3	3	3-	2-	14	26	30	30	26		0.8
29	D	3	3	2	3-	2	3-	5+	5	26-	2+	3	2	3+	2+	3-	5-	4+	22	40	42	27	55		1.1
30		4	3	2+	4+	3-	2	3+	3	25-	4	3	2+	4-	3-	2	3	3-	17	32	32	37	28		0.9
31		2	3-	3-	1+	2+	2-	2	3-	17+	2	3-	3-	2	2-	2	2-	3	9	21	18	21	18		0.5
																		Mean	14	25.4	22.1	23.9			0.58

Day	Three-Hourly Indices Kn								Three-Hourly Indices Ks							
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
1	3	2-	2-	2-	2-	2+	3-	3	3	2-	2	1	2-	3-	2	3
2	4-	3+	2-	3+	5-	3+	5+	6+	4+	4	1+	5-	5	4-	5+	7-
3	7-	7-	6	6-	5-	4-	3	2	7	6	6+	6+	5-	3+	3	3
4	2+	3+	4	3	3	4-	3+	3-	2	4-	4-	3+	3-	4	3+	3+
5	4	4-	2+	3-	2+	1+	2	2+	5-	4+	2-	2+	2	1+	3-	3-
6	2	3	3-	3-	2-	2-	1+	2+	3-	3-	3-	3-	2	2-	2	3
7	3	2	1+	2-	2-	2+	1+	3-	4+	2	2-	2-	2	3-	2-	3+
8	3	3-	2+	2-	3	2	2-	2-	3+	3-	3-	2-	3-	1+	2-	1+
9	2	2-	2-	0+	1-	1	1-	1	2+	2-	1+	0+	1-	1-	0+	0
10	0+	2-	2-	2-	2+	3-	2-	1	0	1+	1+	2-	2-	4-	1-	0+
11	2-	2-	3-	2+	3-	2+	3	3	2-	2+	2+	2+	2	2	3+	3
12	3-	2-	2	2	2-	2-	1+	2-	3-	2	2-	2	2-	1+	1	2+
13	1+	2	2	1	3-	2	1+	2-	1+	2	2-	1+	2	1+	1-	1
14	1+	1	2-	1-	1+	1	0+	0+	2-	1	1-	0+	1-	0+	0+	0+
15	1	1+	0+	1	2-	1+	1+	3-	0+	1	0+	0+	1	1+	1-	3
16	2	2-	1+	2+	2	1	1-	1-	1+	2-	1	2-	2-	1-	0+	0
17	1-	1+	1+	1+	1-	1-	1+	2-	0+	1-	1-	1	1-	0+	1-	1
18	1-	1-	0+	1	1	1+	1	1	0+	0+	1-	0+	1	1-	0+	0+
19	1	1	1+	1+	1+	3+	3+	4-	0+	0+	1	1	1	2-	4-	4-
20	3	4-	3	3-	2+	2+	3+	3	3+	4+	4-	3-	2	2+	4-	3-
21	3+	2	2-	2+	3-	3-	2+	2+	4-	2+	3-	2+	3-	2+	2	2
22	2	2	3+	2	3-	3-	3-	2+	2+	2	3	2-	2	3-	3	3-
23	1	1+	4-	3+	3+	3	2+	2	1-	0+	4	4-	4-	3-	2+	2-
24	2-	2-	2-	2	1	1+	1	2+	2+	2-	2-	2-	1	1	1-	2-
25	2+	3-	2+	2+	2	3-	2+	1	2	2	2-	2+	2-	2+	2-	0+
26	2-	2-	1	2-	2-	2+	2	2-	2	2+	0+	1-	1-	1+	2-	1
27	0+	2+	2-	2	2-	1+	2	1+	0	2-	1+	2-	1	1	1+	1
28	2-	3	3+	4-	3+	3	2+	2-	2+	3	3+	3	3	3	3-	2-
29	3-	3-	2+	3+	2+	2+	4	4-	2+	3+	2	3+	2+	3-	5	5-
30	3+	3-	2+	4-	3-	2+	3-	3	4+	3+	2+	4-	3-	2	3	3-
31	2-	2+	3-	2	2+	2-	2	3-	2+	3	3-	2+	1+	2+	1+	3

DAILY AVERAGE INDICES Ap

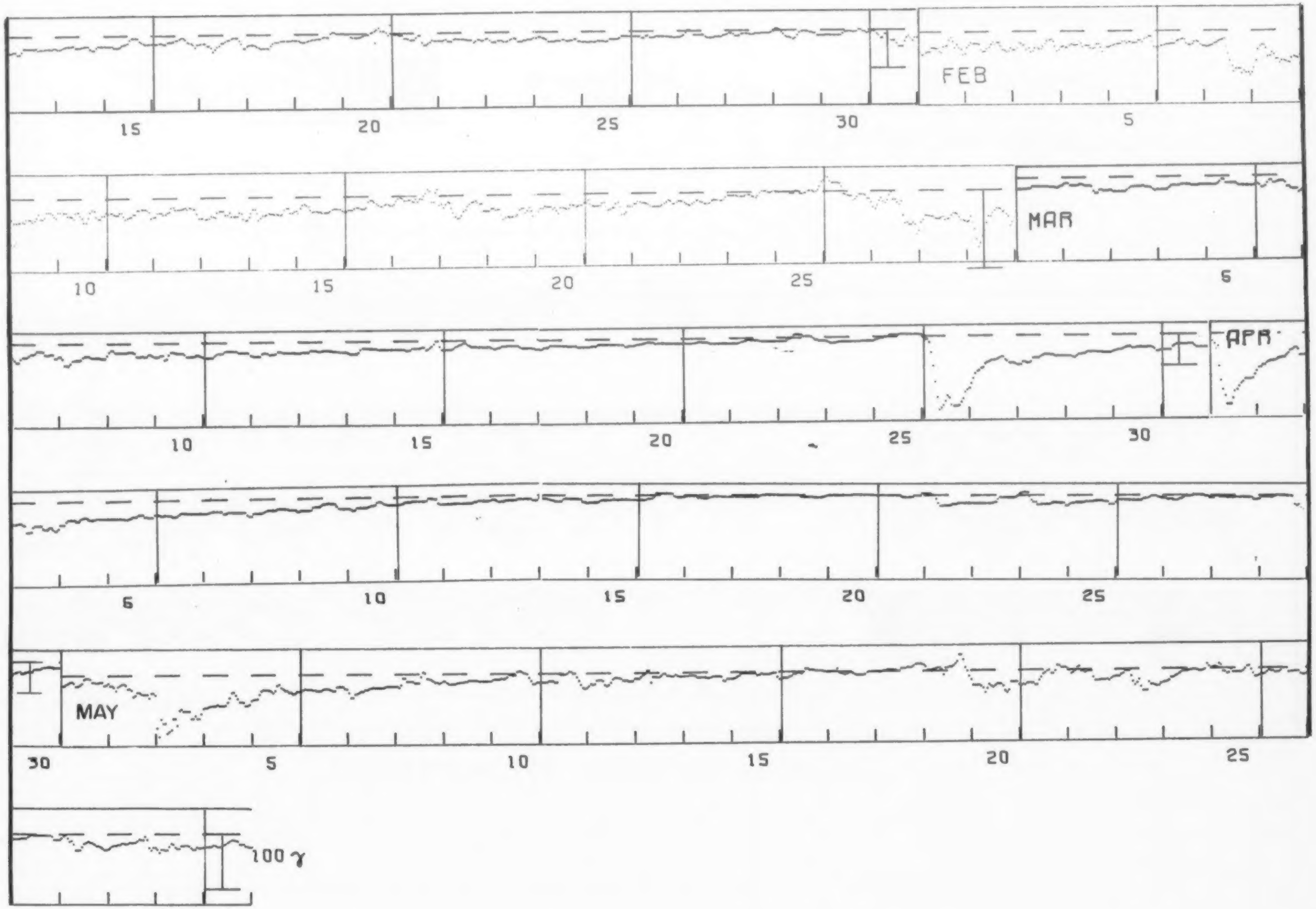
DAY	JUN 1975	JUL	AUG	SEP	OCT	NOV	DEC	JAN 1976	FEB	MAR	APR	MAY
1	24	12	9	7	6	7	32	4	23	17	107	10
2	28	6	7	6	2	36	27	4	20	32	16	58
3	12	7	5	3	11	65	12	15	16	27	44	94
4	11	6	6	3	9	41	13	10	12	12	30	20
5	12	5	29	4	6	22	8	9	8	15	27	14
6	11	6	7	13	25	11	7	13	8	33	30	8
7	6	12	5	7	38	10	4	11	21	26	27	10
8	4	37	14	6	45	7	18	5	29	42	14	10
9	5	35	15	24	37	37	16	4	24	36	16	4
10	4	17	15	26	24	20	8	47	24	32	12	6
11	14	18	7	26	8	13	5	40	12	27	12	11
12	27	5	4	19	12	9	3	13	17	26	9	7
13	14	10	5	17	7	4	3	9	22	11	13	6
14	8	13	16	13	9	3	6	11	17	14	15	4
15	13	15	18	8	5	4	9	7	8	15	4	5
16	17	12	5	6	10	6	14	10	6	18	8	5
17	12	14	9	13	8	17	9	14	14	20	5	4
18	12	15	6	14	4	7	6	9	22	13	2	3
19	12	9	4	8	3	8	6	8	25	11	5	12
20	6	6	15	7	5	9	3	11	19	8	2	19
21	9	6	17	6	6	18	9	20	14	5	5	11
22	5	6	12	4	6	50	10	23	14	3	19	11
23	4	6	10	4	7	8	7	20	4	5	8	14
24	3	6	6	2	4	13	2	21	3	4	16	6
25	4	33	9	3	4	15	18	10	4	4	9	9
26	5	19	5	14	5	14	34	5	9	138	6	6
27	4	11	6	14	5	5	31	6	26	35	11	5
28	4	10	5	8	9	9	15	5	20	15	10	14
29	26	4	27	5	12	29	15	6	34	15	17	22
30	22	5	14	2	9	36	11	9		12	10	17
31		5	6		19		7	29		10		9
MEAN	11	12	10	10	12	18	12	13	16	22	17	14

GEOMAGNETIC ACTIVITY INDICES



GEOMAGNETIC ACTIVITY INDICES
Hourly Equatorial Dst

1976



Note the changes in sensitivity as well as the changing 0 reference level.

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

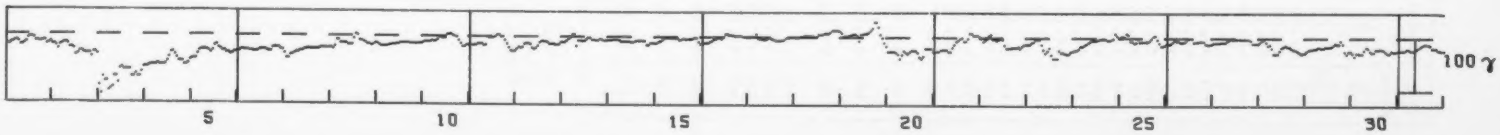
MAY 1976

NASA/GODDARD SPACE FLIGHT CENTER

(Time-UT) (Units-Gammas)

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-18	-20	-16	-14	-12	-11	-15	-20	-20	-17	-14	-7	-5	-6	-8	-13	-13	-15	-13	-12	-13	-19	-17	-14
2	-20	-19	-23	-28	-20	-18	-16	-15	-19	-26	-24	-28	-40	-36	-31	-32	-35	-36	-35	-35	-42	-32	-32	-37
3	-95	-110	-77	-87	-84	-104	-99	-96	-76	-78	-90	-62	-60	-65	-63	-66	-55	-79	-79	-72	-78	-77	-68	-59
4	-57	-58	-55	-54	-56	-56	-52	-56	-55	-55	-53	-48	-40	-31	-30	-37	-43	-48	-49	-50	-55	-54	-52	-45
5	-43	-42	-42	-34	-29	-26	-28	-26	-29	-31	-34	-28	-19	-17	-24	-27	-30	-30	-33	-33	-36	-33	-30	-32
6	-30	-27	-25	-29	-26	-26	-29	-29	-31	-30	-29	-26	-25	-27	-27	-29	-31	-29	-22	-21	-24	-24	-27	-28
7	-34	-43	-42	-35	-34	-32	-30	-30	-27	-27	-25	-24	-23	-26	-25	-25	-26	-25	-22	-21	-21	-23	-24	-21
8	-21	-25	-19	-7	-9	-14	-15	-14	-14	-18	-18	-16	-5	3	0	-10	-11	-12	-14	-17	-16	-19	-16	-13
9	-14	-18	-20	-20	-20	-20	-17	-16	-15	-16	-14	-14	-12	-13	-14	-12	-14	-15	-15	-14	-15	-15	-13	-13
10	-11	-10	-10	-11	-9	-10	-9	-6	-2	-4	-5	-3	3	4	3	0	-2	-3	-9	-14	-19	-19	-16	-15
11	-15	-18	-16	-15	-13	-14	-15	-18	-15	0	-4	-4	-2	0	3	1	-2	-1	-9	-15	-22	-27	-29	-26
12	-23	-19	-22	-10	-13	-12	-12	-16	-23	-25	-21	-17	-11	-8	-9	-11	-12	-15	-15	-15	-17	-15	-14	-10
13	-12	-12	-7	-4	-2	4	2	-19	-7	-8	-10	-9	-5	-2	-2	-7	-7	-9	-8	-4	-7	-9	-9	-7
14	-6	-6	-5	-5	-6	-8	-11	-10	-9	-9	-10	-12	-11	-9	-7	-7	-8	-8	-10	-17	-18	-12	-13	-12
15	-12	-10	-8	-6	-3	-2	-2	-3	-4	-4	-4	-5	-8	-5	-3	-6	-4	-4	-4	-3	-1	-4	-11	-15
16	-14	-11	-11	-11	-9	-7	-4	-4	-1	-3	-5	0	5	6	2	3	1	0	2	0	0	-1	-2	0
17	-2	-1	1	1	5	-4	-5	-6	-7	-4	-2	-1	-5	-7	-8	-8	-7	-6	-5	-2	0	0	0	-2
18	-2	-3	-2	1	1	3	2	2	2	1	-1	1	5	5	4	7	5	7	9	12	13	12	11	9
19	6	1	0	2	3	4	6	5	1	-9	5	6	7	7	9	12	15	28	26	17	3	-2	-12	-18
20	-28	-28	-28	-26	-30	-33	-41	-32	-25	-30	-32	-27	-24	-24	-26	-30	-38	-41	-35	-20	-23	-20	-22	-27
21	-29	-25	-28	-23	-22	-24	-24	-28	-27	-18	-13	-7	-5	-2	0	-8	-9	-2	8	5	2	3	3	0
22	-3	-8	-5	-2	3	6	-5	-5	-7	-3	-3	-5	-15	-20	-19	-20	-18	-18	-18	-17	-21	-16	-13	-12
23	-12	-12	-9	-7	-3	-4	-4	-14	-24	-29	-24	-19	-33	-40	-39	-38	-23	-29	-29	-31	-32	-30	-26	-24
24	-23	-22	-20	-16	-16	-13	-11	-8	-6	-4	-4	-5	-3	-2	-1	-1	-4	-6	-6	-3	-1	8	3	-1
25	2	3	0	8	4	-7	-8	-11	-8	-2	-8	-7	-8	-8	-8	-5	-1	3	4	-5	-11	-16	-16	-13
26	-12	-11	-10	-7	-4	-7	-7	-10	-9	-7	-5	-1	0	-3	-10	-7	-7	-6	-6	-7	-12	-14	-13	-11
27	-9	-9	-9	-8	-7	-10	-9	-5	-3	-1	-4	-4	-2	-2	-3	-3	-4	-3	-4	-6	-11	-12	-12	-12
28	-7	-4	-2	-9	-15	-12	-20	-31	-29	-28	-23	-18	-15	-13	-17	-18	-20	-23	-22	-25	-27	-30	-30	-27
29	-24	-21	-20	-21	-19	-19	-17	-18	-20	-20	-16	-17	-16	-15	-13	-10	-13	-12	-5	-12	-27	-31	-25	-26
30	-30	-35	-28	-29	-31	-28	-22	-17	-20	-25	-28	-26	-21	-21	-20	-22	-24	-27	-30	-30	-24	-27	-27	-24
31	-25	-23	-24	-23	-20	-23	-25	-25	-23	-20	-18	-15	-13	-11	-11	-14	-15	-20	-19	-20	-24	-25	-26	-26

MAY



PRINCIPAL MAGNETIC STORMS

MAY 1976

OBS. 2 letter IAGA code	GEOMAGNETIC LATITUDE	COMMENCEMENT DAY	COMMENCEMENT hr min (UT)	COMMENCEMENT TYPE	SC - AMPLITUDES D(')	SC - AMPLITUDES H(γ)	SC - AMPLITUDES Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY (3 HOUR PERIOD)	K	RANGES D(')	RANGES H(γ)	RANGES Z(γ)	UT END DAY	UT END HOUR
HD	07.6N	1	1200	..	..	..	..	02(5)	6	7	97	22	02	17
CO	64.6N	2	08--	..	..	..	..	02(4) 03(3,4)	7	295	1950	1530	03	22
SI	60.0N	2	01--	..	..	..	..	03(4)	8	140	--	900	03	18
NE	55.1N	2	1828	SC*	8	45	3	03(2)	9	131	840	717	05	14
WI	54.2N	2	1829	SC	+ 4	+60	0	03(1)	8	60	495	185	03	22
FR	49.6N	2	09--	..	..	..	..	02(8) 03(2)	7	79	235	260	05	04
BD	48.9N	2	02--	..	..	..	..	03(2)	8	74	258	224	03	18
TU	40.4N	2	09--	..	..	..	..	03(2)	8	30	270	75	05	15
SJ	29.9N	2	1828	SC	+ 1	+14	+ 3	03(1)	6	12	144	44	03	21
HO	21.1N	2	10--	..	..	..	..	03(3)	7	14	157	58	03	17
AL	09.5N	2	06--	..	..	..	..	02(8) 03(1,2)	6	9	178	56	03	17
HD	07.6N	2	1828	SC	- 0.3	+31	- 2	03(1,2,3)	6	7	181	32	03	22
GU	04.0N	2	1828	SC	..	15	-04	03(4)	6	0	170	30	03	18
AN	01.5N	2	06--	..	..	..	..	--	-	9	197	79	03	17
HU	00.6S	2	1130	..	..	..	..	03(1,2,3)	6	10	307	70	05	04
TV	01.1S	2	06--	..	..	..	..	--	-	7	244	189	03	17
AP	16.0S	2	0140	..	..	..	..	02(8) 03(1,4)	6	6	180	61	03	19
PM	18.6S	2	00--	..	..	..	..	03(4)	7	6	190	60	04	12
HR	33.7S	2	02--	..	..	..	..	03(1)	7	47	190	187	03	18
GN	43.2S	2	03--	..	..	..	..	03(4)	7	36	160	200	05	09
TO	46.7S	2	1829	SC	+ 3.5	+14	+ 3	03(4)	7	44	270	80	03	22
KG	56.5S	2	18--	..	..	..	..	02(8) 03(1)	8	--	--	--	03	17
HR	33.7S	5	00--	..	..	..	..	05(1,2)	5	18	34	45	05	10
HD	07.6N	11	0530	..	..	..	..	11(3,4,5,7) 12(1)	3	5	63	27	12	18
NE	55.1N	19	16--		..	..	..	19(8) 20(2) 21(1) 22(3)	5	33	89	83	23	01
HD	07.6N	19	1647	SC	- 0.1	+ 8	0	19(6,7,8) 20(7)	4	5	88	22	20	23
HR	33.7S	19	1649	SC	0	+ 3	+ 1	20(2,7)	5	19	78	52	21	03
GN	43.2S	19	17--	..	..	..	..	23(5)	5	14	70	80	24	00
KG	56.5S	19	16--	..	..	..	..	20(7)	5	--	--	--	21	00
HD	07.6N	21	1200	..	..	..	..	23(3)	4	5	118	18	23	19
NE	55.1N	23	06--		..	..	..	23(3,4,5)	5	24	76	90	24	13
HR	33.7S	29	19--	..	..	..	..	29(7,8)	5	15	72	82	30	01

Reports were received from the following observatories:

College
Sitka
Newport
Witteveen
Fredericksburg
Boulder
Tucson
San Juan
Honolulu
Alibag
Hyderabad
Guam
Annamalaingar
Huancayo
Apia
Trivandrum
Port Moresby
Hermanus
Gnangara
Toolangi
Port-aux-Francais

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

MAY 1976

PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS (by Dr. A. Romañá)
The meaning of the station symbols is given in the IAGA-Bulletin nr. 32.
Times of ssc are mean values.

Sudden commencements followed by a magnetic storm or a period of storminess (ssc)

02 1829 A: WI FU? VI LG IK EB CI TL LM; B: WN MT KA SS KY GN TO; C: NI

Solar-flare effects (sfe)
Effects confirmed by ionospheric or solar observations are underlined.

05 0901 - 0911 TL

16 0604 - 0628 SS

16 1154 - 1204 LG

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

MAY 1976

North Atlantic

MAY 1976	WHOLE DAY INDICES NORTH ATLANTIC	ADVANCE FORECASTS (JC-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES 00 TO 06	06 TO 12	12 TO 18	18 TO 24	SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF 02	08	14	20	GEOMAGNETIC INDICES K_{FR} HALF DAY (1)	(2)	A_{FR} OBSERVED
01	6-	5	5+	5+	6+	6+	5	5	5	5	3	2	11
02	6-	5	6-	5-	6o	6o	5	5	6	6	3	(5)	37
03	4o	5	5o	3+	4+	4-	4	4	4	4	(6)	3	56
04	4+	5	3+	3+	5o	6-	4	4	5	5	(4)	3	20
05	5+	5	6-	5+	5+	5o	5	5	6	5	3	2	14
06	6o	5	6-	6o	6+	6-	5	5	6	5	3	1	10
07	6-	5	6-	5o	6o	6+	5	5	6	6	2	2	7
08	6+	6	6o	6o	6+	6+	6	6	6	6	3	2	12
09	6o	6	6o	6-	6o	7-	6	5	6	5	1	1	3
10	6+	6	6+	6o	6+	6o	6	5	6	6	1	2	5
11	6+	6	6o	6o	6+	6+	6	6	6	6	3	2	11
12	6o	6	5+	6o	6o	6+	6	6	6	6	2	2	7
13	7-	6	6+	7-	7-	7-	6	6	6	6	2	2	6
14	6+	6	6+	6o	6+	6+	6	6	6	7	1	1	3
15	6+	6	7o	7-	6o	6-	6	6	6	6	1	2	5
16	6+	6	6o	6+	7-	6-	6	6	6	6	2	1	5
17	6o	6	6-	6o	7o	6o	6	6	6	7	1	1	3
18	6-	6	6-	5+	6o	6+	6	6	6	7	1	1	3
19	6o	6	6+	6o	6o	6o	6	6	6	6	1	3	8
20	6-	6	6-	5+	6o	6o	6	5	5	6	3	2	15
21	6-	6	6o	5o	6o	6o	5	5	6	6	3	2	10
22	6o	6	6o	6-	6o	6+	6	6	6	6	3	2	11
23	6o	6	6o	6o	6-	6o	6	6	6	6	2	3	14
24	6+	6	6o	6o	7-	6+	6	6	6	6	2	2	8
25	7-	6	6+	6+	7o	6+	6	6	7	6	3	2	9
26	6+	6	6o	6o	7o	6+	6	6	6	6	2	2	6
27	6+	6	6o	6o	7-	7-	6	6	6	6	2	2	6
28	7-	6	7-	6o	6+	7o	6	5	5	5	3	2	14
29	6o	5	7-	5+	6o	6+	5	5	5	5	3	3	16
30	6o	4	6o	5+	6o	6+	5	5	6	6	(4)	2	16
31	6o	4	6o	5o	6+	6+	5	5	6	6	3	2	10

RADIO PROPAGATION QUALITY INDICES

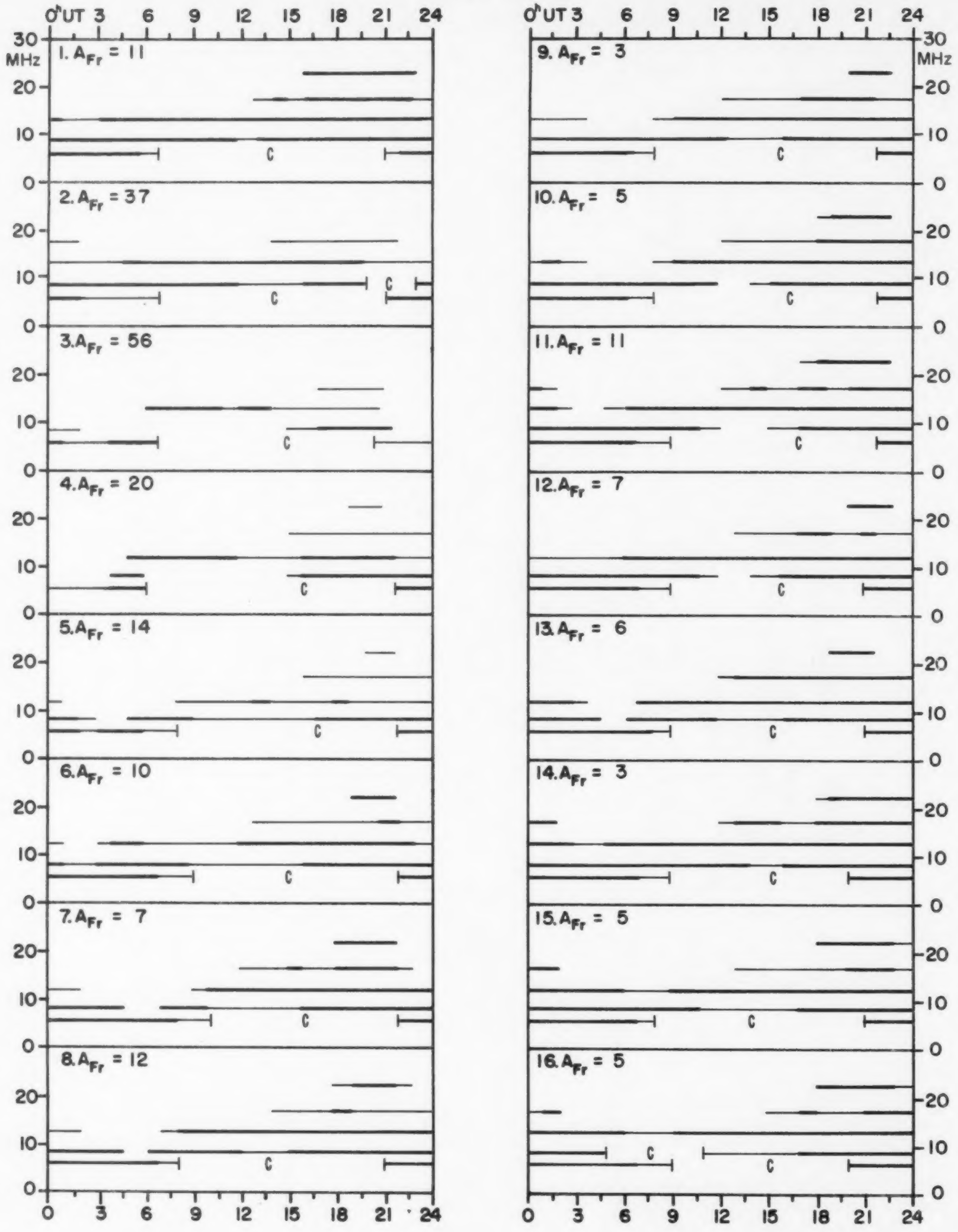
MAY 1976

Quality Indices calculated for reception at Lüchow

	TOKYO	HALIFAX	MOSCOW	CANBERRA	BRACKNELL
1	4.2	7.8	12.8	5.3	12.7
2	3.1	6.1	12.0	4.8	12.2
3	1.4	3.4	11.1	3.1	11.9
4	2.8	5.2	12.4	4.3	12.1
5	2.2	5.0	12.1	3.4	12.3
6	3.7	6.0	12.3	3.5	12.5
7	4.7	6.3	12.1	4.4	12.6
8	5.4	6.6	12.1	4.9	12.5
9	6.4	7.2	12.4	5.6	12.2
10	6.0	7.6	12.9	5.0	12.8
11	5.3	7.6	12.9	4.9	13.2
12	6.3	7.3	13.1	5.7	13.0
13	6.6	8.2	13.3	5.4	13.4
14	7.1	8.3	13.4	5.1	13.5
15	7.0	8.0	13.1	5.1	13.5
16	6.5	8.2	13.6	5.3	13.2
17	7.2	8.4	13.3	5.4	12.9
18	8.1	8.9	13.1	5.4	13.1
19	6.4	7.9	13.5	5.6	13.2
20	5.3	7.8	13.2	5.2	12.4
21	5.9	7.4	13.2	6.2	12.7
22	6.4	7.3	13.0	5.8	13.2
23	5.9	7.7	13.0	5.3	13.0
24	6.8	8.3	13.2	5.1	12.4
25	7.2	8.5	13.3	5.5	13.2
26	6.5	8.5	13.4	6.1	13.6
27	7.4	8.5	13.2	5.8	13.4
28	5.9	7.9	13.2	6.0	13.2
29	5.7	7.6	12.9	5.4	13.4
30	4.7	7.5	12.9	5.0	12.7
31	5.2	8.2	12.9	5.2	12.2
MEAN	5.6	7.4	12.9	5.1	12.8

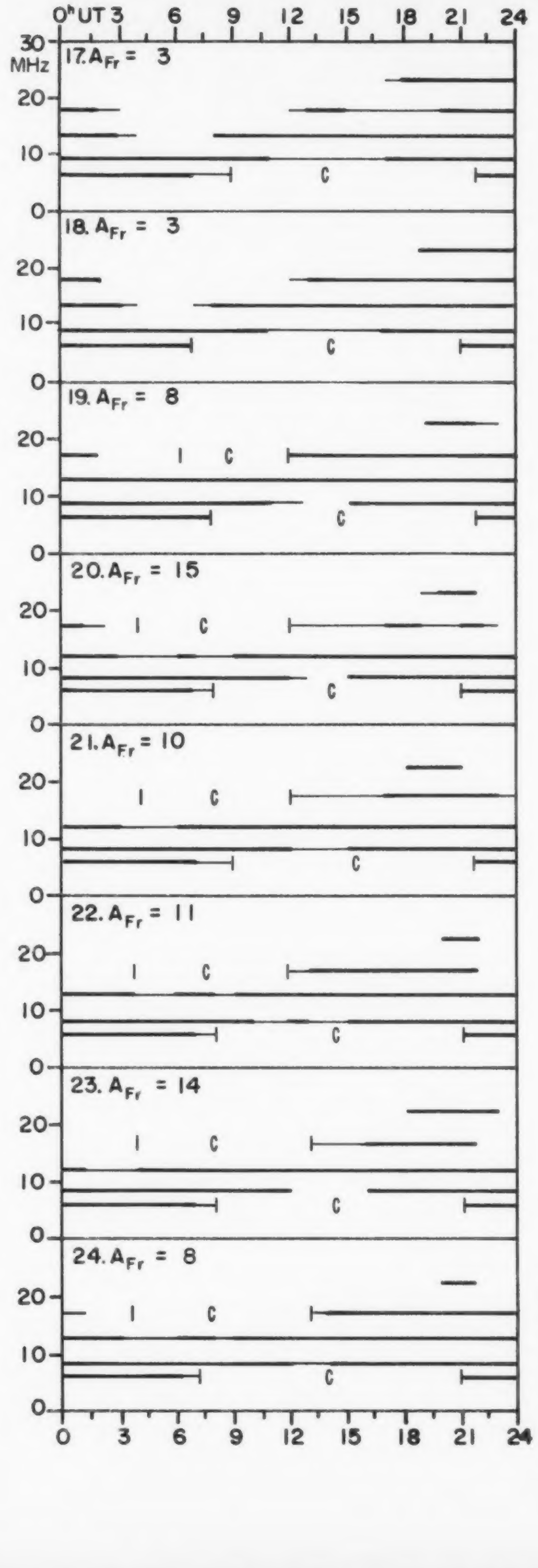
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

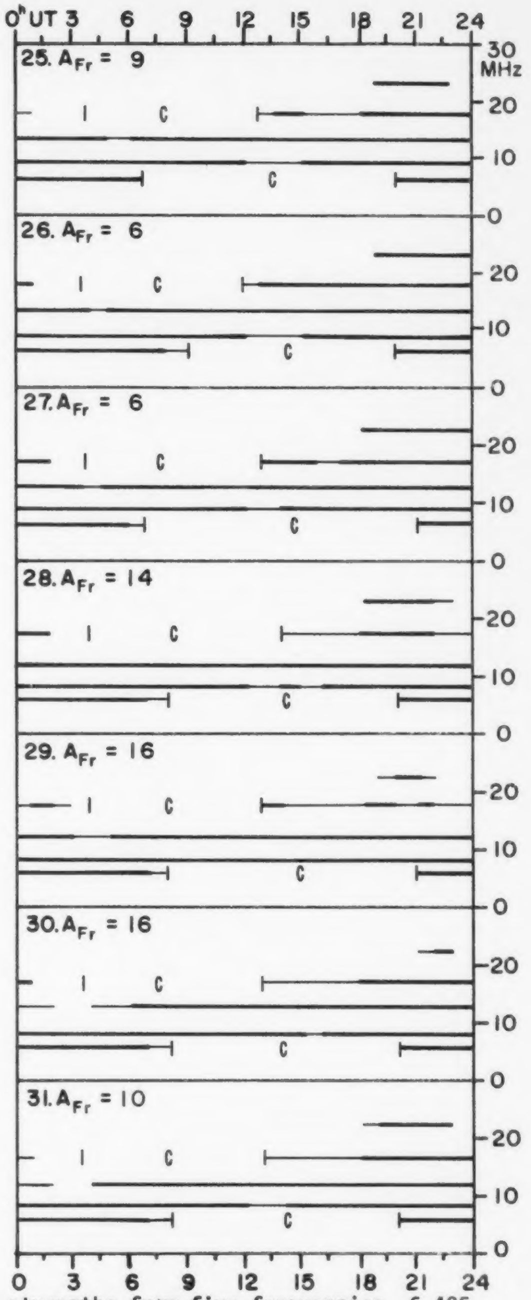
MAY 1976



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

MAY 1976





Field strengths from five frequencies, 6.425, 8.542, 12.813, 17.084 and 22.378 MHz, observed on a Lüchow.- Halifax circuit are represented above. Heavy solid lines represent field strengths ≥-12 dB above 1 μv/m (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 μv/m and -40 dB above 1 μv/m are represented by the fine line. **Adapted from Observations by Deutsche Bundespost**

USCOMM-NOAA-ASHEVILLE,NC-7-30-76-950

AMERICAN REVOLUTION BICENTENNIAL 1776-1976